

State of California
The Resources Agency

DEPARTMENT OF WATER RESOURCES
Division of Operations and Maintenance

STATE WATER PROJECT OPERATIONS DATA

For the month of:
December 2003

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Governor
State of California

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Secretary for Resources
The Resources Agency

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State of California
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MONTHLY HIGHLIGHTS

The following highlights are activities or actions that impacted State Water Project operations during the month of December 2003.

Statewide precipitation was near average for the 2003-2004 water year as of December 31. Statewide runoff was 80 percent of average for the water year. Precipitation percentages are used in this report to express historical and regional comparisons. Additional and more specific information is available via the internet at: <http://cdec.water.ca.gov/snow-rain.html>.

On December 31, total storage in major SWP reservoirs was about 3.50 MAF, compared with about 2.91 MAF at this time in 2002. The average storage in the major SWP reservoirs at the end of December is about 3.48 MAF. The December 31 storage at Lake Oroville was about 2.25 MAF as compared to 1.60 MAF last year. The State's share of San Luis Reservoir storage was about 616 TAF, as compared with 676 TAF at this time last year. On December 31, the combined storage in our southern reservoirs was about 635 TAF, compared with about 635 TAF at this time last year.

Through December, SWP water deliveries for 2003 were about 2.35 MAF. This is a combination of project, transfer, and exchange waters. This is 217 TAF more than delivered during the same period in 2002.

The Delta Cross Channel gates were closed on December 1, for fish protection. As a result water quality degraded significantly. Exports were severely curtailed to prevent further salinity intrusion. Mid month rains quickly alleviated the problem and excess conditions were declared on December 15.

Repairs to four additional sites of the Santa Ana Pipeline (Devil Canyon to Box Springs turnout) were completed.

Table 1. Antelope Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 22,566 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs						Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage	Total Outflow		
				Stream-flow Maint.	Water Supply Contract	Water Right					
Nov 30	4993.50	15,443									
1	4993.44	15,398	-45	20	0	0	0	3	23	0	
2	4993.43	15,391	-7	20	0	0	0	0	20	16	
3	4993.32	15,309	-82	20	0	0	0	21	41	0	
4	4993.30	15,295	-14	20	0	0	0	0	20	13	
5	4993.30	15,295	0	20	0	0	0	0	20	20	
6	4993.46	15,413	118	20	0	0	0	0	20	79	
7	4993.50	15,443	30	20	0	0	0	0	20	35	
8	4993.48	15,428	-15	20	0	0	0	0	20	12	
9	4993.42	15,384	-44	20	0	0	0	2	22	0	
10	4993.42	15,384	0	20	0	0	0	0	20	20	
11	4993.42	15,384	0	20	0	0	0	0	20	20	
12	4993.37	15,347	-37	20	0	0	0	0	20	1	
13	4993.38	15,354	7	20	0	0	0	0	20	24	
14	4993.43	15,391	37	20	0	0	0	0	20	39	
15	4993.40	15,369	-22	20	0	0	0	0	20	9	
16	4993.33	15,317	-52	20	0	0	0	6	26	0	
17	4993.30	15,295	-22	20	0	0	0	0	20	9	
18	4993.26	15,265	-30	20	0	0	0	0	20	5	
19	4993.24	15,250	-15	20	0	0	0	0	20	12	
20	4993.22	15,236	-14	20	0	0	0	0	20	13	
21	4993.20	15,221	-15	20	0	0	0	1	21	13	
22	4993.17	15,199	-22	20	0	0	0	2	22	11	
23	4993.14	15,177	-22	20	0	0	0	1	21	10	
24	4993.24	15,250	73	20	0	0	0	1	21	58	
25	4993.24	15,250	0	20	0	0	0	2	22	22	
26	4993.17	15,199	-51	20	0	0	0	6	26	1	
27	4993.14	15,177	-22	20	0	0	0	0	20	9	
28	4993.14	15,177	0	20	0	0	0	0	20	20	
29	4993.23	15,243	66	20	0	0	0	0	20	53	
30	4993.21	15,228	-15	20	0	0	0	0	20	12	
31	4993.16	15,191	-37	20	0	0	0	1	21	3	
Total cfs-days				---	620	0	0	46	666	539	
Total ac-ft				-252	1,230	0	0	91	1,321	1,069	

Table 2. Frenchman Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 55,477 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage		
				Stream-flow Maint.	Water Supply Contract	Water Right				
Nov 30	5564.31	25,469								
1	5564.31	25,469	0	2	0	0	0	0	2	
2	5564.32	25,479	10	2	0	0	0	0	2	
3	5564.31	25,469	-10	2	0	0	0	3	5	
4	5564.31	25,469	0	2	0	0	0	0	2	
5	5564.31	25,469	0	2	0	0	0	0	2	
6	5564.42	25,577	108	2	0	0	0	0	2	
7	5564.40	25,557	-20	2	0	0	0	8	10	
8	5564.40	25,557	0	2	0	0	0	0	2	
9	5564.43	25,586	29	2	0	0	0	0	2	
10	5564.51	25,664	78	2	0	0	0	0	2	
11	5564.48	25,635	-29	2	0	0	0	13	15	
12	5564.49	25,645	10	2	0	0	0	0	2	
13	5564.48	25,635	-10	2	0	0	0	3	5	
14	5564.53	25,684	49	2	0	0	0	0	2	
15	5564.55	25,704	20	2	0	0	0	0	2	
16	5564.55	25,704	0	2	0	0	0	0	2	
17	5564.56	25,713	9	2	0	0	0	0	2	
18	5564.55	25,704	-9	2	0	0	0	0	2	
19	5564.58	25,733	29	2	0	0	0	0	2	
20	5564.56	25,713	-20	2	0	0	0	8	10	
21	5564.60	25,753	40	2	0	0	0	0	2	
22	5564.58	25,733	-20	2	0	0	0	8	10	
23	5564.60	25,753	20	2	0	0	0	0	2	
24	5564.72	25,870	117	2	0	0	0	0	2	
25	5564.76	25,910	40	2	0	0	0	0	2	
26	5564.76	25,910	0	2	0	0	0	0	2	
27	5564.75	25,900	-10	2	0	0	0	3	5	
28	5564.75	25,900	0	2	0	0	0	0	2	
29	5564.86	26,008	108	2	0	0	0	0	2	
30	5564.83	25,979	-29	2	0	0	0	13	15	
31	5564.84	25,988	9	2	0	0	0	0	2	
Total cfs-days				---	62	0	0	59	121	
Total ac-ft				519	123	0	0	117	240	
									759	

Table 3. Lake Davis

Daily Operation
(in acre-feet except as noted)

Capacity: 84,371 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage		
				Stream-flow Maint.	Water Supply Contract	Water Right				
Nov 30	5764.19	46,903								
1	5764.07	46,555	-348	10	0	0	0	165	175	
2	5764.02	46,411	-144	10	0	0	0	63	73	
3	5763.98	46,296	-115	10	0	0	0	48	58	
4	5763.93	46,152	-144	10	0	0	0	63	73	
5	5763.89	46,037	-115	10	0	0	0	48	58	
6	5763.84	45,894	-143	10	0	0	0	62	72	
7	5763.80	45,780	-114	10	0	0	0	47	57	
8	5763.75	45,637	-143	10	0	0	0	62	72	
9	5763.71	45,523	-114	10	0	0	0	47	57	
10	5763.66	45,380	-143	10	0	0	0	64	74	
11	5763.61	45,238	-142	10	0	0	0	62	72	
12	5763.57	45,125	-113	10	0	0	0	50	60	
13	5763.52	44,983	-142	10	0	0	0	64	74	
14	5763.48	44,870	-113	10	0	0	0	51	61	
15	5763.43	44,729	-141	10	0	0	0	61	71	
16	5763.39	44,616	-113	10	0	0	0	49	59	
17	5763.34	44,476	-140	10	0	0	0	64	74	
18	5763.30	44,363	-113	10	0	0	0	48	58	
19	5763.25	44,223	-140	10	0	0	0	62	72	
20	5763.20	44,083	-140	10	0	0	0	62	72	
21	5763.16	43,972	-111	10	0	0	0	47	57	
22	5763.11	43,832	-140	10	0	0	0	62	72	
23	5763.06	43,693	-139	10	0	0	0	61	71	
24	5763.02	43,582	-111	10	0	0	0	47	57	
25	5762.97	43,443	-139	10	0	0	0	60	70	
26	5762.92	43,305	-138	10	0	0	0	61	71	
27	5762.88	43,194	-111	10	0	0	0	47	57	
28	5762.83	43,056	-138	10	0	0	0	61	71	
29	5762.78	42,918	-138	10	0	0	0	61	71	
30	5762.74	42,809	-109	10	0	0	0	46	56	
31	5762.69	42,671	-138	10	0	0	0	63	73	
Total cfs-days			---	310	0	0	0	1,858	2,168	
Total ac-ft			-4,232	615	0	0	0	3,685	4,300	
									68	

Table 4. Lake Oroville

Daily Operation

(in acre-feet except as noted)

Capacity: 3,537, 580 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow					Inflow	
				Hyatt Powerplant Generation 1/	Palermo Canal	Evaporation 2/	Spill	Total Outflow	Hyatt Powerplant Pumpback	Computed Inflow 3/
Nov 30	789.20	2,072,284								
	1	788.73	2,067,192	-5,092	10,681	6	7	0	10,694	0
	2	788.55	2,065,245	-1,947	7,644	6	45	0	7,695	0
	3	788.23	2,061,786	-3,459	8,913	6	7	0	8,926	0
	4	787.92	2,058,439	-3,347	10,016	6	30	0	10,052	0
	5	787.41	2,052,941	-5,498	9,630	6	7	0	9,643	0
	6	788.90	2,069,033	16,092	1,649	6	0	0	1,655	0
	7	790.05	2,081,514	12,481	6,779	6	8	0	6,793	0
	8	790.01	2,081,079	-435	8,289	6	60	0	8,355	0
	9	789.72	2,077,927	-3,152	9,983	6	23	0	10,012	0
	10	790.03	2,081,296	3,369	7,709	6	38	0	7,753	0
	11	790.22	2,083,364	2,068	7,925	6	53	0	7,984	0
	12	790.18	2,082,928	-436	8,839	6	15	0	8,860	0
	13	791.00	2,091,865	8,937	3,315	6	0	0	3,321	0
	14	792.49	2,108,173	16,308	8,040	6	30	0	8,076	0
	15	792.57	2,109,051	878	10,444	6	38	0	10,488	0
	16	792.66	2,110,039	988	9,149	6	23	0	9,178	0
	17	793.10	2,114,875	4,836	7,019	6	30	0	7,055	0
	18	793.53	2,119,609	4,734	5,286	6	23	0	5,315	0
	19	793.77	2,122,254	2,645	7,342	6	46	0	7,394	0
	20	794.26	2,127,662	5,408	4,167	6	23	0	4,196	0
	21	795.22	2,138,286	10,624	2,570	6	8	0	2,584	0
	22	795.77	2,144,390	6,104	4,738	5	31	0	4,774	0
	23	796.16	2,148,725	4,335	7,011	5	46	0	7,062	0
	24	798.24	2,171,951	23,226	4,905	5	23	0	4,933	0
	25	799.95	2,191,178	19,227	1,878	5	54	0	1,937	0
	26	800.82	2,201,006	9,828	5,554	5	31	0	5,590	0
	27	801.51	2,208,822	7,816	4,601	5	16	0	4,622	0
	28	802.49	2,219,957	11,135	1,034	5	31	0	1,070	0
	29	803.63	2,232,960	13,003	7,068	5	8	0	7,081	0
	30	804.46	2,242,460	9,500	7,061	4	24	0	7,089	0
	31	804.96	2,248,197	5,737	8,189	2	8	0	8,199	0
Total				175,913	207,428	172	786	0	208,386	0
384,299										

1/ Includes bypass flows

2/ Evaporation will be zero for days when there is precipitation or heavy overcast.

3/ Does not include pumpback.

**Table 5. Thermalito Forebay
Including Diversion Pool and Power Canal**

Capacity: 25,120 ac-ft

Daily Operation
(in acre-feet except as noted)

December 2003

Date	Storage 1/	Storage Change	Inflow			Outflow					Losses (-) And Gains (+)
			Lake Oroville Releases 2/	Kelly Ridge Generation	Thermalito Pumping- Generating Plant Pumpback	Thermalito Pumping- Generating Plant Generation 3/	Butte County 4/	Thermalito Irrigation District	Releases To River 5/	Hyatt Powerplant Pumpback	
Nov 30	23,644										
1	23,772	128	10,681	0	0	9,762	2	3	1,249	0	463
2	23,675	-97	7,644	58	0	6,618	2	3	1,271	0	95
3	23,751	76	8,913	26	0	7,889	2	3	1,279	0	310
4	23,279	-472	10,016	292	0	9,312	2	3	1,285	0	-178
5	23,885	606	9,630	125	0	7,799	2	3	1,279	0	-66
6	23,922	37	1,649	0	0	308	2	3	1,277	0	-22
7	23,320	-602	6,779	0	0	6,320	2	3	1,275	0	219
8	23,541	221	8,289	351	0	7,160	2	3	1,271	0	17
9	23,105	-436	9,983	466	0	9,014	2	3	1,259	0	-607
10	23,705	600	7,709	512	0	6,531	2	3	1,279	0	194
11	23,482	-223	7,925	484	0	6,820	2	3	1,259	0	-548
12	23,564	82	8,839	482	0	7,519	2	3	1,229	0	-486
13	23,741	177	3,315	513	0	2,515	2	3	1,219	0	88
14	23,854	113	8,040	513	0	7,481	2	3	1,229	0	275
15	23,626	-228	10,444	504	0	10,113	2	3	1,231	0	173
16	23,923	297	9,149	515	0	8,236	2	3	1,229	0	103
17	23,926	3	7,019	540	0	6,404	3	3	1,231	0	85
18	23,660	-266	5,286	478	0	4,895	3	3	1,235	0	106
19	23,602	-58	7,342	512	0	6,842	3	3	1,237	0	173
20	24,097	495	4,167	510	0	3,129	3	3	1,243	0	196
21	24,144	47	2,570	512	0	1,865	3	3	1,251	0	87
22	24,175	31	4,738	510	0	3,946	3	3	1,241	0	-24
23	24,062	-113	7,011	513	0	6,482	3	4	1,247	0	99
24	24,724	662	4,905	623	0	4,296	3	4	1,269	0	706
25	24,248	-476	1,878	409	0	1,634	3	4	1,241	0	119
26	23,571	-677	5,554	494	0	5,578	3	4	1,247	0	107
27	24,384	813	4,601	516	0	2,988	3	4	1,245	0	-64
28	24,043	-341	1,034	513	0	795	3	4	1,239	0	153
29	24,073	30	7,068	536	0	7,153	3	4	1,265	0	851
30	23,875	-198	7,061	470	0	6,982	3	4	1,251	0	511
31	23,347	-528	8,189	513	0	8,069	3	4	1,255	0	101
Total		-297	207,428	12,490	0	184,455	77	102	38,817	0	3,236

1/ Sum of Thermalito Forebay and Diversion Pool.

2/ Sum of releases from Lake Oroville through Hyatt plant, and spill.

3/ Includes Bypass flows at Thermalito.

4/ Includes 1 AF of entitlement water to Del Oro WD and 76 AF to Cal Water.

5/ The sum of the flows from fish barrier dam and the fish hatchery.

Table 6. Thermalito Afterbay

Daily Operation

(in acre-feet except as noted)

Capacity: 57,040 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow	Outflow						Losses (-) and Gains (+)	Total Releases to River 2/	
				Thermalito Pumping-Generating Plant Generation 1/	Sutter Butte Canal	Western Canal Lateral	Richvale Canal	Western Canal	Afterbay River Outlet	Thermalito Pumping-Generating Plant Pumpback			
Nov 30	129.03	29,004											
	1	129.92	31,886	2,882	9,762	1,718	20	545	716	3,690	0	-191	4,939
	2	129.87	31,721	-165	6,618	1,694	13	544	689	3,669	0	-174	4,940
	3	130.27	33,055	1,334	7,889	1,684	4	544	689	3,650	0	16	4,929
	4	131.06	35,765	2,710	9,312	1,668	4	484	657	3,669	0	-120	4,954
	5	131.48	37,247	1,482	7,799	1,666	4	454	609	3,650	0	66	4,929
	6	129.67	31,064	-6,183	308	1,664	3	453	589	3,650	0	-132	4,927
	7	129.59	30,802	-262	6,320	1,664	3	453	589	3,669	0	-204	4,944
	8	129.86	31,688	886	7,160	1,642	3	455	589	3,669	0	84	4,940
	9	130.83	34,966	3,278	9,014	1,617	4	455	589	3,669	0	598	4,928
	10	130.99	35,521	555	6,531	1,585	6	455	559	3,669	0	298	4,948
	11	131.35	36,785	1,264	6,820	1,585	8	455	540	3,650	0	682	4,909
	12	131.85	38,575	1,790	7,519	1,525	6	438	522	3,669	0	431	4,898
	13	131.01	35,590	-2,985	2,515	1,494	3	422	472	3,669	0	560	4,888
	14	131.26	36,467	877	7,481	1,498	3	424	462	3,650	0	-567	4,879
	15	132.25	40,036	3,569	10,113	1,489	3	426	462	3,669	0	-495	4,900
	16	132.89	42,425	2,389	8,236	1,447	3	424	460	3,650	0	137	4,879
	17	132.95	42,652	227	6,404	1,470	3	424	460	3,690	0	-130	4,921
	18	132.58	41,260	-1,392	4,895	1,447	3	424	438	3,669	0	-306	4,904
	19	132.74	41,859	599	6,842	1,449	3	422	422	3,669	0	-278	4,906
	20	132.03	39,229	-2,630	3,129	1,452	3	422	421	3,650	0	189	4,893
	21	130.84	35,000	-4,229	1,865	1,449	3	422	421	3,650	0	-149	4,901
	22	130.23	32,920	-2,080	3,946	1,449	3	422	407	3,650	0	-95	4,891
	23	130.45	33,663	743	6,482	1,452	7	424	373	3,669	0	186	4,916
	24	130.05	32,318	-1,345	4,296	1,426	12	422	351	3,669	0	239	4,938
	25	128.64	27,782	-4,536	1,634	1,418	12	422	351	3,650	0	-317	4,891
	26	128.52	27,411	-371	5,578	1,420	11	422	353	3,669	0	-74	4,916
	27	127.54	24,470	-2,941	2,988	1,418	11	422	353	3,669	0	-56	4,914
	28	125.73	19,456	-5,014	795	1,416	11	421	351	3,669	0	59	4,908
	29	126.22	20,762	1,306	7,153	1,408	12	424	327	3,690	0	14	4,955
	30	126.66	21,965	1,203	6,982	1,377	13	422	313	3,669	0	15	4,920
	31	127.51	24,383	2,418	8,069	1,369	6	424	286	3,690	0	124	4,945
Total				-4,621	184,455	47,060	203	13,770	14,820	113,633	0	410	152,450

1/ Includes Bypass flows at Thermalito.

2/ The sum of the flows from the fish barrier dam, fish hatchery, and afterbay river outlet.

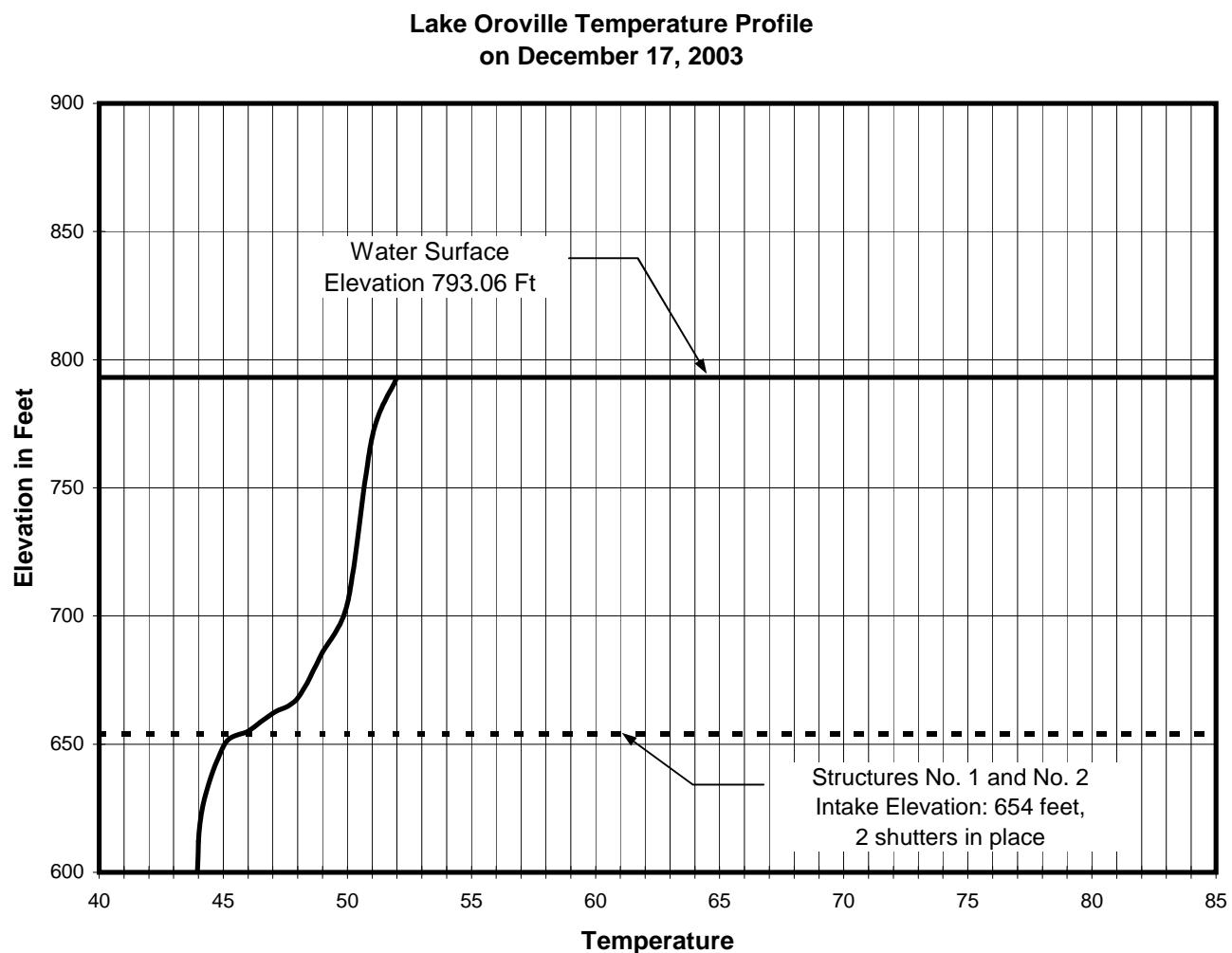
Table 7. Oroville-Thermalito Complex

Water Temperature Data

(in degrees Fahrenheit)

December 2003

Date	Mean Daily Temperature	
	Thermalito Afterbay Outlet	Fish Hatchery
1	49	51
2	49	51
3	50	51
4	50	51
5	50	51
6	51	51
7	51	51
8	50	51
9	50	50
10	49	48
11	49	48
12	49	49
13	48	49
14	49	48
15	48	48
16	48	49
17	47	48
18	47	48
19	47	48
20	47	48
21	47	48
22	47	48
23	47	47
24	48	47
25	48	47
26	47	47
27	46	47
28	45	46
29	44	46
30	44	46
31	45	47



Note: Water surface elevations on Table 4 are taken at Oroville Dam at midnight and may differ slightly from those shown on this table which are normally taken at mid-day and upstream from Oroville Dam.

Table 8. North Bay Aqueduct
Delta Field Division, Monthly Deliveries

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries				
	Beginning and Ending					Table A Amount		Permit		
	No.	Structure	Mile			M & I	Benicia			
1	1	Barker Slough Pumping Plant	0.17	(Into the North Bay Aqueduct)	4,718	424	886	131		
		Travis Surge Tank	8.78							
			8.80	Solano County Water Agency Travis Turnout	131					
			10.54	Solano County Water Agency Fairfield / Vacaville 24"	424					
				Solano County Water Agency Fairfield / Vacaville 42"	886					
			17.00	Solano County Water Agency Central Solano	Stub					
2		Cordelia Forebay	21.23			788	1,304			
		Cordelia Pumping Plant & Cordelia Spillway	21.30		2,972					
3A		Napa Pipeline	21.33	Solano County Water Agency Vallejo	1,304	164	715			
				Solano County Water Agency Benicia	788					
3B	2	Cordelia Surge Tank	23.33			164	715			
		Creston Surge Tank Connection	25.65							
			26.95	Napa County Flood Control & WCD American Canyon 2	164					
			27.27	Napa County Flood Control & WCD American Canyon 3	0					
		Napa Terminal Tank	27.58	City of Napa	715					
			27.60	Napa County Flood Control & WCD American Canyon 1	1					

Table 9. Delta Field Division Plant Data

(in acre-feet)

December 2003

Date	North Bay Aqueduct		California Aqueduct		South Bay Aqueduct			
	Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant		
			Total	SWP		Into Lake	Into Aqueduct	Gravity Flow Through Plant Into Aqueduct
1	163	97	4,791	4,791	245	0	0	0
2	153	91	3,372	3,372	240	0	0	0
3	154	93	3,877	3,877	253	0	0	0
4	174	108	4,713	4,713	255	0	0	0
5	186	121	4,898	4,898	410	0	0	0
6	179	124	3,934	3,934	380	0	0	0
7	180	125	4,446	4,446	369	0	0	0
8	169	112	2,085	2,085	380	0	0	0
9	149	86	1,017	1,017	359	0	0	0
10	153	98	974	974	362	0	0	0
11	138	92	2,294	2,294	361	0	0	0
12	152	91	4,213	4,213	373	0	0	0
13	152	91	5,954	5,954	395	0	0	0
14	148	99	7,802	7,802	299	0	0	0
15	151	95	12,921	12,921	408	0	0	0
16	147	66	13,779	13,779	465	0	0	0
17	152	92	11,734	11,734	388	0	0	0
18	165	102	10,185	10,185	206	0	0	0
19	169	102	8,986	8,986	127	0	0	0
20	160	106	10,969	10,969	127	0	0	0
21	137	92	11,561	11,561	108	0	0	0
22	144	90	12,833	12,833	125	0	0	0
23	135	85	13,853	13,853	111	0	0	0
24	126	74	13,550	13,550	109	0	0	0
25	127	71	13,936	13,936	109	0	0	0
26	134	92	13,829	13,829	110	0	0	0
27	142	92	13,817	13,817	117	0	0	0
28	152	113	13,825	13,825	127	0	0	0
29	156	106	11,390	11,390	110	0	0	0
30	154	99	11,826	11,826	124	0	0	0
31	117	67	5,167	5,167	120	0	0	0
Total	4,718	2,972	258,531	258,531	7,672	0	0	0

Table 10. Clifton Court Forebay

Daily Operation of Gates

December 2003

Date	Time										Amount of inflow in Acre-Feet
	Opened	Closed									
1	0:01	0:30	2:00	5:30	11:40	14:30	16:30	18:20			4,920
2	0:01	1:45	3:15	5:22	23:15	---					2,942
3	---	3:15	4:53	6:30	13:30	14:35					3,963
4	0:30	4:30	6:00	8:15	11:30	14:55					4,949
5	1:15	5:30	7:35	9:35	12:00	13:45					4,941
6	2:00	6:30	8:00	10:00	12:30	13:50					4,946
7	2:30	7:15	8:45	14:35							5,934
8	4:00	6:30									899
9	5:00	7:11									909
10	5:30	7:45									974
11	0:05	1:45	5:30	9:20							1,928
12	0:01	2:15	5:45	10:22							3,933
13	0:01	3:00	6:08	11:30	13:00	17:45					5,933
14	0:55	3:00	7:30	12:15	13:45	15:21					7,931
15	0:01	4:05	7:30	13:00	14:30	23:15					13,136
16	0:45	3:45	8:15	13:30	15:00	---					13,241
17	---	0:30	2:00	6:00	9:15	14:15	15:45	---			11,949
18	---	2:00	3:30	6:55	9:06	15:45	16:15	19:38	23:30	---	10,250
19	---	3:30	5:00	8:00	10:25	15:30	17:09	19:42			9,740
20	0:54	4:45	6:15	9:05	9:50	16:15	17:50	21:22			10,473
21	1:26	6:00	7:30	17:00	18:30	21:40					12,574
22	2:40	7:00	8:30	17:45	19:15	23:20					12,553
23	3:00	8:00	9:30	18:30	20:05	---					14,133
24	---	0:45	3:45	8:45	10:15	19:15					14,175
25	0:01	1:30	4:30	9:45	11:15	20:00	21:30	22:15			14,174
26	0:01	2:15	5:15	10:30	12:00	21:00	22:30	---			14,174
27	---	1:50	6:25	11:15	12:45	21:45	23:15	---			12,781
28	---	2:25	7:00	12:00	13:30	22:45					12,511
29	0:15	3:41	7:45	12:45	14:15	---					13,459
30	---	0:01	1:30	4:50	8:30	13:30	15:00	19:20	20:47	---	10,489
31	---	1:15	2:45	6:30	9:30	14:15	15:45	17:40			7,670
Total inflow for the month in AF:											262,584

Table 11. Governor Edmund G. Brown California Aqueduct

Delta Field Division, Monthly Deliveries

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	USBR	Local	Loan Water	Dry Year Purchase		
	No.	Structure	Mile									
1	Banks Pumping Plant	3.32			258,531	3	3	0	0	0		
	South Bay Pumping Plant	4.49	Bethany Reservoir Inlet		7,672							
	Check No. 1	5.95										
	2	Check No. 2	12.01									
	3		12.47	Musco Olive	3							
		Check No. 3	18.29									
	4		22.16	Tracy Golf & Country Club	0							
		Check No. 4	23.99									
	5	Check No. 5	29.73			8	1	0	0	0		
	6	Check No. 6	34.24									
	7		35.22	Turlock Fruit Company Inflow	0							
		Check No. 7	39.91									
	8		42.46	Oak Flat Water District-A	0							
			42.9	Western Hills WD	8							
			43.81	Oak Flat Water District-B	1							
			44.64	Oak Flat Water District-C	0							
		Check No. 8	45.97									
	9		46.18	Oak Flat Water District-D	0	1	0	0	0	0		
				Oak Flat Totals:	1							
2B		Check No. 9	51.3									
	10	Check No. 10	56.86									
	11	Check No. 11	61.4									
	12		66.14	Veteran's Cemetery	2							
		Check No. 12	66.71		233,617							

Table 12. South Bay Aqueduct
Delta Field Division, Monthly Deliveries

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Purchase Pool A	Purchase Pool B	Local	Recreation		
	No.	Structure	Mile									
1	1	South Bay Pumping Plant	0.00	(into South Bay Aqueduct)	7,672	1						
			3.17									
			3.18									
	Check No. 1		3.91									
	2	Check No. 2	5.21									
2	3		7.21	Zone 7 Altamont	0	553				310		
		Check No. 3	9.49	Zone 7 Patterson Inflow Exchange	310							
				Zone 7 Patterson Project Water	553							
4	4	Check No. 4	10.68			906						
		Check No. 5	12.29									
	6		13.55	Zone 7 Wente #1	0							
			14.16	Zone 7 Wente #2	0							
			14.31	Ising Project Water	0							
		Check No. 6	14.65									
	7		14.78	Zone 7 Arroyo Mocho Project Water	906							
		Check No. 7	16.38									
	8		16.57	Zone 7 Wente #3	0							
			16.69	Zone 7 Norman Nursery	0							
			16.70	Zone 7 Concannon Project Water	0							
		Del Valle Branch Pipeline Junction	18.63	(Pumped into Lake Del Valle)	0							
				(Flow into South Bay Aqueduct)	0							
5	Deliveries through Del Valle Branch Pipeline			Arroyo Valle #1 & #2 Project Water	0	231				10 2		
				Arroyo Valle #1 & #2 Inflow Exchange	10							
				Lake Del Valle Recreation	2							
				Zone 7 Wente #5	0							
				So. Livermore Project	0							
6			19.20	So. Livermore Inflow Exchange	6	231				6		
				So. Livermore Stored Exchanged	0							
			19.21	Zone 7 - Kalthrof Detjens	0							
				ACWD Vallecitos Project Water	231							
7	La Costa Tunnel		22.50	City of San Francisco		539				316		
			25.97	San Antonio	0							
8	Mission Tunnel		28.97	ACWD - Bayside 1 & 2 Project Water:	539	539				316		
				Inflow Released	0							
9	Santa Clara Pipeline		35.86	Inflow Exchange: S.C.V.W.D. Meter	316	4,790						
					4,790							

Table 13. Lake Del Valle

Daily Operation

Capacity: 77,106 ac-ft

December 2003

(in acre-feet except as noted)

Date	Water Surface Elevation (feet)	Storage	Storage Change	Inflow		Outflow					Precipitation (inches)
				Natural 1/	From South Bay Aqueduct	Arroyo Valle	South Bay Aqueduct	Recreation Deliveries 2/	Evaporation	Total Outflow	
Nov 30	680.33	25,953									
1	680.32	25,948	-5	-4	0	0	0	0	1	1	0.05
2	680.34	25,958	10	13	0	0	0	0	3	3	0.03
3	680.34	25,958	0	2	0	0	0	0	2	2	0.00
4	680.34	25,958	0	1	0	0	0	0	1	1	0.00
5	680.34	25,958	0	1	0	0	0	0	1	1	0.17
6	680.34	25,958	0	1	0	0	0	0	1	1	0.01
7	680.36	25,969	11	12	0	0	0	0	1	1	0.31
8	680.36	25,969	0	2	0	0	0	0	2	2	0.10
9	680.37	25,974	5	7	0	0	0	0	2	2	0.00
10	680.41	25,995	21	22	0	0	0	0	1	1	0.33
11	680.42	26,000	5	6	0	0	0	0	1	1	0.31
12	680.41	25,995	-5	-3	0	0	0	0	2	2	0.00
13	680.41	25,995	0	0	0	0	0	0	0	0	0.12
14	680.47	26,026	31	32	0	0	0	0	1	1	0.42
15	680.47	26,026	0	1	0	0	0	0	1	1	0.00
16	680.46	26,021	-5	-4	0	0	0	0	1	1	0.00
17	680.46	26,021	0	3	0	0	0	0	3	3	0.00
18	680.46	26,021	0	2	0	0	0	0	2	2	0.00
19	680.48	26,031	10	11	0	0	0	0	1	1	0.00
20	680.50	26,041	10	11	0	0	0	0	1	1	0.23
21	680.50	26,041	0	1	0	0	0	0	1	1	0.27
22	680.49	26,036	-5	-4	0	0	0	0	1	1	0.02
23	680.51	26,046	10	11	0	0	0	0	0	1	0.10
24	680.54	26,062	16	16	0	0	0	0	0	1	0.05
25	680.62	26,103	41	42	0	0	0	0	1	1	0.55
26	680.68	26,135	32	34	0	0	0	0	2	2	0.02
27	680.71	26,150	15	16	0	0	0	0	1	1	0.00
28	680.73	26,161	11	12	0	0	0	0	2	2	0.00
29	680.90	26,249	88	90	0	0	0	0	2	2	0.29
30	681.34	26,480	231	233	0	0	0	1	1	2	0.56
31	681.48	26,553	73	75	0	0	0	1	1	2	0.03
Total				600	642	0	0	0	2	40	42
3.97											

1/ Total inflow from stream gaging station above Lang Canyon and accretions/depletions.

2/ To East Bay Regional Park District.

NR=No Records

Table 14. Consolidated State-Federal O'Neill Forebay

Daily Operations

December 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity 56,430 ac-ft

Date	Water Surface Elevation (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)	
				Pump In	O'Neill Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	California Aqueduct	O'Neill Pumping Generating Plant (Generation)	Gianelli Pumping Generating Plant (Pumped)	Dos Amigos Pumping Plant	Deliv-eries 1/		
Nov 30	219.84	42,738											
1	222.13	48,730	5,992	0	3,840	3,586	2,106	0	2,588	3,881	11	-31	
2	220.33	44,009	-4,721	0	3,808	652	1,624	0	3,833	4,814	11	194	
3	219.70	42,376	-1,633	0	3,733	1,761	1,977	0	3,383	4,925	3	17	
4	221.00	45,760	3,384	0	3,786	3,248	2,030	0	2,399	4,947	3	-9	
5	223.00	51,046	5,286	0	3,838	5,399	2,005	0	3,738	4,714	3	-122	
6	222.40	49,447	-1,599	0	3,876	2,380	1,857	0	3,566	5,288	1	-64	
7	221.85	47,992	-1,455	0	3,896	2,445	1,753	0	3,571	5,035	1	-221	
8	220.13	43,489	-4,503	0	3,944	2,295	818	0	5,159	4,238	1	71	
9	220.40	44,192	703	0	3,815	4,447	374	0	3,940	4,254	3	-85	
10	221.01	45,787	1,595	0	2,821	4,482	65	0	2,219	4,266	3	-76	
11	220.14	43,515	-2,272	0	2,126	2,523	1,140	0	3,120	3,992	3	180	
12	220.99	45,734	2,219	0	2,220	4,268	1,740	0	2,225	4,618	3	-263	
13	221.79	47,835	2,101	0	3,038	1,512	2,600	0	1,736	4,538	3	186	
14	221.80	47,861	26	0	3,426	1,346	3,416	0	3,648	4,787	3	263	
15	222.80	50,513	2,652	0	3,819	0	5,235	0	4,199	4,155	3	640	
16	222.00	48,385	-2,128	0	3,860	0	6,914	0	8,081	4,184	1	419	
17	220.13	43,489	-4,896	0	3,818	0	5,064	0	8,241	3,639	1	531	
18	219.50	41,862	-1,627	0	3,953	666	4,701	0	6,224	4,375	1	460	
19	219.95	43,023	1,161	0	3,966	816	3,911	0	3,457	4,972	0	321	
20	220.23	43,749	726	0	3,914	640	5,235	0	4,479	5,174	1	231	
21	220.46	44,348	599	0	3,896	1,395	5,374	0	6,146	4,522	1	306	
22	221.04	45,865	1,517	0	3,911	0	5,916	0	4,647	4,714	1	300	
23	222.68	50,193	4,328	0	3,890	0	6,477	0	5,242	3,443	1	501	
24	223.60	52,652	2,459	0	3,857	0	6,566	0	5,579	4,088	1	485	
25	221.90	48,124	-4,528	0	3,889	0	6,771	0	9,515	3,865	1	438	
26	222.98	50,993	2,869	0	3,784	0	5,851	0	6,201	2,747	1	761	
27	221.14	46,128	-4,865	0	3,848	0	6,447	0	9,703	3,591	1	547	
28	219.87	42,815	-3,313	0	3,863	0	6,139	0	9,170	2,978	1	477	
29	220.73	45,054	2,239	0	3,730	0	5,630	0	5,828	2,810	1	408	
30	219.94	42,997	-2,057	0	3,870	0	5,241	0	6,954	3,508	1	315	
31	220.20	43,671	674	0	3,826	1,533	2,805	0	4,526	3,461	1	164	
Total				933	0	113,861	45,394	117,782	0	153,317	130,523	70	7,344
Mean cfs				---	0	3,673	1,464	3,799	0	4,946	4,210	2	237
Acre-feet				933	0	225,841	90,038	233,617	0	304,101	258,889	139	14,566

1/ Includes 94 AF delivered to DFG at O'Neill Forebay, 1 AF to the Cattle program, and 44 AF to SLWD.

Table 15. Consolidated State-Federal San Luis Reservoir

Daily Operations

December 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 2,027,835 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)	Outflow (cfs)			Computed Losses (-) Gains (+) (cfs)
				Gianelli Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	Pacheco Tunnel 1/	Parks and Rec. Del.	
Nov 30	464.79	1,122,517						
1	464.53	1,119,815	-2,702	2,588	3,586	190	0	-174
2	465.07	1,125,429	5,614	3,833	652	179	0	-172
3	465.34	1,128,239	2,810	3,383	1,761	186	0	-19
4	465.14	1,126,157	-2,082	2,399	3,248	176	0	-25
5	464.79	1,122,517	-3,640	3,738	5,399	174	0	0
6	464.98	1,124,492	1,975	3,566	2,380	177	0	-13
7	465.17	1,126,469	1,977	3,571	2,445	176	0	47
8	465.62	1,131,156	4,687	5,159	2,295	172	0	-329
9	465.47	1,129,593	-1,563	3,940	4,447	169	0	-112
10	465.04	1,125,117	-4,476	2,219	4,482	165	0	171
11	465.11	1,125,845	728	3,120	2,523	159	0	-71
12	464.74	1,121,997	-3,848	2,225	4,268	165	0	268
13	464.82	1,122,829	832	1,736	1,512	166	0	361
14	465.12	1,125,949	3,120	3,648	1,346	157	0	-572
15	465.84	1,133,450	7,501	4,199	0	163	0	-254
16	467.25	1,148,185	14,735	8,081	0	173	0	-479
17	468.69	1,163,297	15,112	8,241	0	165	0	-457
18	469.65	1,173,407	10,110	6,224	666	204	0	-257
19	470.11	1,178,261	4,854	3,457	816	233	0	39
20	470.74	1,184,920	6,659	4,479	640	235	0	-247
21	471.55	1,193,498	8,578	6,146	1,395	231	0	-195
22	472.33	1,201,778	8,280	4,647	0	230	0	-243
23	473.22	1,211,248	9,470	5,242	0	222	0	-246
24	474.22	1,221,916	10,668	5,579	0	212	0	11
25	475.94	1,240,334	18,418	9,515	0	207	0	-22
26	476.95	1,251,223	10,889	6,201	0	200	0	-511
27	478.62	1,269,262	18,039	9,703	0	202	0	-406
28	480.21	1,286,516	17,254	9,170	0	195	0	-276
29	481.27	1,298,061	11,545	5,828	0	200	0	193
30	482.40	1,310,407	12,346	6,954	0	189	0	-541
31	482.96	1,316,540	6,133	4,526	1,533	145	1	245
Total		194,023		153,317	45,394	5,817	1	-4,286
Mean cfs		- - -		4,946	1,464	188	0	-138
Acre-feet		194,023		304,101	90,038	11,546	1	-8,493

1/ Pacheco Tunnel, San Felipe Split; Santa Clara: 11,047 AF, San Benito: 499 AF.

Table 16. San Luis Field Division Plant Data

(in acre-feet)

December 2003

Date	Dos Amigos Pumping Plant		Gianelli Pumping - Generating Plant				San Felipe Project
	Total Pumping	SWP Pumping 1/	Total Generation	SWP Generation 1/	Total Pumping	SWP Pumping 1/	Federal
1	7,697	6,715	7,113	7,113	5,134	-112	376
2	9,549	8,550	1,294	1,294	7,602	25	355
3	9,768	8,790	3,493	3,493	6,711	50	368
4	9,813	8,851	6,442	6,442	4,758	-165	350
5	9,350	8,389	10,708	10,708	7,414	-185	346
6	10,488	9,504	4,721	4,721	7,073	-170	351
7	9,986	8,946	4,849	4,849	7,083	1,658	350
8	8,407	7,444	4,552	4,552	10,232	5,200	342
9	8,437	7,493	8,820	8,820	7,815	523	336
10	8,461	7,507	8,891	8,891	4,401	1	328
11	7,918	6,982	5,004	5,004	6,189	1,758	316
12	9,160	8,386	8,465	8,465	4,413	10	327
13	9,002	8,209	2,999	2,999	3,444	27	329
14	9,495	8,959	2,670	2,670	7,236	1,271	311
15	8,242	7,714	0	0	8,328	2,435	324
16	8,298	7,769	0	0	16,028	8,612	344
17	7,217	6,688	0	0	16,346	9,029	327
18	8,677	8,166	1,322	1,322	12,345	5,107	404
19	9,861	9,346	1,618	1,618	6,856	-380	463
20	10,263	9,741	1,270	1,270	8,884	2,845	467
21	8,970	8,970	2,766	2,766	12,191	1,855	459
22	9,351	9,351	0	0	9,217	2,059	457
23	6,829	6,829	0	0	10,398	3,279	440
24	8,109	8,109	0	0	11,065	3,842	421
25	7,666	7,666	0	0	18,873	7,500	411
26	5,449	5,449	0	0	12,300	5,195	396
27	7,123	7,123	0	0	19,246	12,235	401
28	5,906	5,906	0	0	18,189	7,141	387
29	5,574	4,625	0	0	11,560	7,417	397
30	6,959	5,997	0	0	13,793	6,789	375
31	6,864	5,899	3,041	3,041	8,977	2,143	288
Total	258,889	240,073	90,038	90,038	304,101	96,994	11,546

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

Table 17. Consolidated State-Federal Los Banos Reservoir

Daily Operations
December 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity 34,560 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft)
					Spill	Outlet	
Nov 30	323.95	18,811					
1	323.95	18,811	0	0	0	0	0
2	323.94	18,807	-4	0	0	0	-4
3	323.94	18,807	0	0	0	0	0
4	323.94	18,807	0	0	0	0	0
5	323.96	18,815	8	4	0	0	0
6	323.97	18,820	5	3	0	0	-1
7	323.95	18,811	-9	0	0	0	-9
8	323.93	18,802	-9	0	0	0	-9
9	323.94	18,807	5	3	0	0	-1
10	323.95	18,811	4	2	0	0	0
11	323.94	18,807	-4	0	0	0	-4
12	323.93	18,802	-5	0	0	0	-5
13	323.94	18,807	5	3	0	0	-1
14	323.94	18,807	0	0	0	0	0
15	323.92	18,798	-9	0	0	0	-9
16	323.91	18,793	-5	0	0	0	-5
17	323.91	18,793	0	0	0	0	0
18	323.91	18,793	0	0	0	0	0
19	323.93	18,802	9	5	0	0	-1
20	323.94	18,807	5	3	0	0	-1
21	323.94	18,807	0	0	0	0	0
22	323.95	18,811	4	2	0	0	0
23	323.95	18,811	0	0	0	0	0
24	323.95	18,811	0	0	0	0	0
25	324.00	18,833	22	11	0	0	1
26	323.97	18,820	-13	0	0	0	-13
27	323.96	18,815	-5	0	0	0	-5
28	323.97	18,820	5	3	0	0	-1
29	324.02	18,842	22	11	0	0	0
30	324.03	18,847	5	3	0	0	-1
31	324.03	18,847	0	0	0	0	0
Total			36	53	0	0	-69
Mean cfs			---	2	0	0	---
Acre-feet			36	105	0	0	-69

Table 18. Consolidated State-Federal Little Panoche Reservoir

Daily Operations

December 2003

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 5,580 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft) 1/	Storage Change (ac-ft) 1/	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft) 1/
					Spill	Outlet	
Nov 30	599.80	674					
1	599.85	676	2	1	0	0	0
2	Not Observed			0	0	0	0
3	Not Observed			0	0	0	0
4	600.00	684	8	4	0	0	0
5	Not Observed			0	0	0	0
6	600.10	689	5	3	0	0	-1
7	600.10	689	0	0	0	0	0
8	Not Observed			0	0	0	0
9	600.15	691	2	1	0	0	0
10	600.15	691	0	0	0	0	0
11	600.15	691	0	0	0	0	0
12	600.15	691	0	0	0	0	0
13	600.20	694	3	2	0	0	-1
14	600.20	694	0	0	0	0	0
15	600.20	694	0	0	0	0	0
16	Not Observed			0	0	0	0
17	600.20	694	0	0	0	0	0
18	600.20	694	0	0	0	0	0
19	600.30	699	5	3	0	0	-1
20	Not Observed			0	0	0	0
21	600.20	694	-5	0	0	0	-5
22	600.40	704	10	5	0	0	0
23	600.40	704	0	0	0	0	0
24	600.50	709	5	3	0	0	-1
25	600.55	712	3	2	0	0	-1
26	Not Observed			0	0	0	0
27	Not Observed			0	0	0	0
28	600.60	715	3	2	0	0	-1
29	600.65	717	2	1	0	0	0
30	Not Observed			0	0	0	0
31	600.70	717	0	0	0	0	0
Total			43	27	0	0	-11
Mean cfs			---	1	0	0	---
Acre-feet			43	54	0	0	-11

1/ Not available on a daily basis

Table 19a. Governor Edmund G. Brown California Aqueduct

San Luis Field Division, Monthly Deliveries

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries					
		Beginning and Ending				USBR	Transfer	DWR Recreation	USBR Recreation		
	No.	Structure	Mile								
2B	12	Check No. 12	66.71		233,617						
3A		San Luis Reservoir		Department of Parks and Recreation	1	11,047	499	1			
				San Felipe Division Santa Clara Water District	11,047						
				San Felipe Division San Benito Water District	499						
3	13	O'Neill Forebay	70.85	Department of Parks and Recreation	0	44	0	52	42		
				Cattle Program	1						
				Department of Fish & Game	94						
			70.91 Thru 85.08	San Luis Water District	44	44	0	53	42		
				(Floodwater Inflow)	0						
				Reach 3 Subtotal:	139	44	0	53	42		
			Check No. 13 86.73								
					258,889						
4	14		89.03			614	41	33	74		
			Thru 94.06	San Luis Water District	614						
			89.66								
			Thru 89.67	Pacheco Water District	41						
			89.68								
			89.70	Panoche Water District	33						
			Check No. 14	City of Dos Palos	74						
			95.06								
	15		98.15				91	1,493	4,571		
			Thru 104.20	San Luis Water District	91						
			96.15								
			Thru 102.64	Panoche Water District	1,493						
				(Floodwater Inflow)	0						
			102.64	Broadview Water District	0						
			105.22								
			Thru 108.64	Westlands Water District	4,571						
			Check No.15	108.50							
				San Felipe Division Total:	11,546	11,546	0	0	0		
				Pacheco Water District Total:	41	41	0	0	0		
				Broadview Water District Total:	0	0	0	0	0		
				City of Dos Palos Total:	74	74	0	0	0		
				SLWD Reach 4 Subtotal:	749	749	0	0	0		
				Panoche Water District Total:	1,526	1,526	0	0	0		
				SLWD Total:	749	749	0	0	0		
				Westlands WD Reach 4 Subtotal:	4,571	4,571	0	0	0		

Table 19b. Governor Edmund G. Brown California Aqueduct

San Luis Field Division, Monthly Deliveries (Continued)

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries							
	Beginning and Ending					USBR	Transfer	DWR Recreation	USBR Recreation				
	No.	Structure	Mile										
5	16		110.52	(Reverse flow, Kings River)	0	3,324	3,324	1					
			Thru	Westlands Water District	3,324								
			122.05	Department of Fish and Game	1								
		Check No. 16	122.07										
	17		124.18	Westlands Water District	3,657	3,657							
			132.74										
		Check No. 17	132.95										
	18		133.81	Westlands Water District	4,548	4,548							
			Thru										
			142.61										
		Pleasant Valley Pumping Plant	143.16	Westlands Water District	2,145	2,145							
			143.16	City of Coalinga	403		403						
		Check No. 18	143.23										
				Westlands WD Reach 5 Subtotal:	13,674	13,674	0	0	0				
6	19		145.26	Westlands Water District	8,098	8,098							
			Thru										
		Check No. 19	155.64			8,098	0	0	0				
				Westlands WD Reach 6 Subtotal:	8,098								
7	20		156.34	City of Huron	46	46							
			156.40	Westlands Water District	6,116		6,116						
			Thru										
			163.69										
		Check No. 20	164.69			186							
	21		164.79	City of Avenal	186		1,597						
			167.04	Westlands Water District	1,597								
			Thru										
			171.67			227,976							
		Check No. 21	172.40										
				Reach 7 Total:	7,945	7,945	0	0	0				
				Westlands WD Total:	34,056	34,056	0	0	0				
				City of Coalinga Total:	403	403	0	0	0				
				City of Huron Total:	46	46	0	0	0				
				City of Avenal Total:	186	186	0	0	0				
Total San Luis Field Division Deliveries:					48,723	48,627	0	54	42				

Table 20. Consolidated State-Federal San Luis Canal 1/

Daily Operations
December 2003

United States
Department of the Interior
Bureau of Reclamation
Central Valley Project

State of California
The Resources Agency
Department of Water Resources
State Water Project

Date	Storage In Canal (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
			Non- Project	Dos Amigos Pumping Plant	Pools 14 & 15 2/	Pool 15	Pools 15 thru 21 3/	Flow Past Check 21	
Nov 30	28,619								
1	28,228	-391	0	3,881	14	35	553	3,382	-94
2	28,082	-146	0	4,814	14	35	553	3,992	-293
3	27,860	-222	0	4,925	19	38	558	4,147	-275
4	28,052	192	0	4,947	8	29	525	4,111	-177
5	28,036	-16	0	4,714	8	29	525	4,092	-68
6	28,529	493	0	5,288	8	29	525	4,331	-147
7	29,049	520	0	5,035	8	29	525	4,199	-12
8	28,599	-450	0	4,238	8	29	525	3,785	-118
9	28,381	-218	0	4,254	8	29	525	3,788	-14
10	27,564	-817	0	4,266	9	35	529	4,032	-73
11	27,107	-457	0	3,992	10	30	1,232	3,523	572
12	27,416	309	0	4,618	10	30	1,232	3,730	540
13	27,112	-304	0	4,538	10	30	1,232	3,967	547
14	27,933	821	0	4,787	10	30	1,232	3,816	715
15	27,570	-363	0	4,155	10	30	1,232	3,828	762
16	27,767	197	0	4,184	10	30	1,232	3,541	728
17	27,420	-347	0	3,639	10	33	1,242	3,209	680
18	26,781	-639	0	4,375	15	23	345	4,150	-164
19	27,143	362	0	4,972	15	23	345	4,187	-220
20	27,564	421	0	5,174	15	23	345	4,372	-207
21	27,675	111	0	4,522	15	23	345	4,084	1
22	28,221	546	0	4,714	15	23	345	3,987	-68
23	27,569	-652	0	3,443	19	23	345	3,479	94
24	28,350	781	0	4,088	18	29	346	3,445	144
25	28,016	-334	0	3,865	18	10	156	4,062	213
26	28,127	111	0	2,747	18	10	156	2,632	125
27	27,609	-518	0	3,591	18	10	156	3,652	-16
28	28,240	631	0	2,978	18	10	156	2,399	-77
29	28,133	-107	0	2,810	18	10	156	2,592	-88
30	28,645	512	0	3,508	18	10	156	2,992	-74
31	28,331	-314	0	3,461	19	12	161	3,431	5
Total		-288	0	130,523	413	769	17,490	114,936	2,941
Mean cfs		---	0	4,210	13	25	564	3,708	95
Acre-feet		-288	0	258,889	820	1,526	34,692	227,976	5,837

1/ San Luis Canal includes Pools 14 through 21 of the California Aqueduct.

2/ Includes 40 AF AG & 1 AF M&I to Pacheco W.D., 74 AF to the City of Dos Palos, and 705 AF to SLWD.

3/ Includes 46 AF to the City of Huron, 186 AF to the City of Avenal, 403 AF to the City of Coalinga,

1 AF to F&G @ WWD Lateral 4L, and 34,056 to Westlands WD.

Table 21. San Joaquin Field Division Plant Data

(in acre-feet)

December 2003

Date	Coastal Aqueduct					California Aqueduct			
	Las Perillas Pumping Plant	Badger Hill Pumping Plant	Devil's Den Pumping Plant	Bluestone Pumping Plant	Polonio Pass Pumping Plant	Buena Vista Pumping Plant	Teerink Pumping Plant	Chrisman Pumping Plant	Edmonston Pumping Plant
1	103	103	56	54	61	5,302	5,418	5,249	5,221
2	133	133	54	49	56	5,510	5,701	5,603	5,474
3	100	100	47	44	49	5,828	5,796	5,713	5,546
4	111	111	62	57	64	5,570	5,600	5,411	5,425
5	98	98	52	48	54	5,494	5,708	5,531	5,506
6	122	122	61	57	65	6,070	6,057	5,849	5,801
7	91	91	51	50	57	5,596	5,844	5,696	5,801
8	51	51	41	35	38	5,806	5,859	5,614	5,533
9	83	83	44	41	46	5,597	5,752	5,525	5,533
10	108	108	63	59	66	5,677	5,721	5,588	5,562
11	80	80	44	38	47	5,291	5,566	5,396	5,425
12	78	78	36	33	38	5,673	5,847	5,599	5,561
13	79	79	57	52	61	5,832	5,973	5,832	5,801
14	68	68	56	52	59	5,596	5,690	5,569	5,578
15	57	57	38	36	41	5,462	5,643	5,428	5,282
16	102	102	51	49	53	5,173	5,096	4,945	4,827
17	105	105	44	41	47	5,424	5,730	5,603	5,555
18	106	106	55	51	58	5,831	5,878	5,685	5,663
19	112	112	44	40	46	5,551	5,832	5,656	5,586
20	108	108	67	62	70	6,411	6,596	6,424	6,392
21	81	81	50	45	52	6,496	6,819	6,540	6,450
22	118	118	62	59	63	6,076	6,103	6,025	5,983
23	112	112	45	43	48	5,217	5,396	5,268	5,256
24	113	113	54	48	55	5,585	5,813	5,517	5,425
25	95	95	63	59	68	5,884	6,002	5,870	5,795
26	65	65	37	36	40	4,446	4,949	4,758	4,672
27	100	100	43	39	44	5,576	5,676	5,453	5,426
28	112	112	44	40	46	3,455	3,654	3,579	3,554
29	103	103	45	44	47	3,435	3,417	3,315	3,282
30	110	110	36	32	37	3,988	4,280	4,097	4,065
31	105	105	36	34	36	5,061	5,162	5,043	4,946
Total	3,009	3,009	1,538	1,427	1,612	167,913	172,578	167,381	165,926

Table 22a. Governor Edmund G. Brown California Aqueduct
 San Joaquin Field Division, Monthly Deliveries

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending		No.			Table A Amount	USBR	Purchase Pool A	Purchase Pool B	Dry Year Purchase		
	No.	Structure	Mile									
7	21	Check No. 21	172.40		227,976							
8C	22		172.66	Empire West Side Irrig. Dist. TL - A	273	273						
				County of Kings TL - A	550	550						
				TLBWSA TL-A	1,772	1,772						
			175.18	DRWD - 1	19	19						
			177.54	DRWD - 1B	0							
			180.64	TLBWSA - C	0							
			180.65	DRWD - 1A	17	17						
			182.99	DRWD - 2	139	139						
			183.00	Tulare Lake Basin WSD TL - B	2,616	2,616						
			184.00	DRWD - Paramount	2	2						
31A			184.63	Coastal Branch	3,009							
8D			184.78	Dudley Ridge Water Dist. DRWD - 3	0							
				Dudley Ridge Reach 8D Total:	177	1/ 177	0	0	0	0		
				Tulare Lake Basin WSD Total:	4,388	4,388	0	0	0	0		
		Check No. 22	184.82									
9	23		189.69	Kern County Water Agency Lost Hills Water Dist. - 1	57	57						
			191.18	Kern County Water Agency Lost Hills Water Dist. - 2	0							
			194.22	Kern County Water Agency Lost Hills Water Dist. - 3	0							
			196.40	Kern County Water Agency Berrenda Mesa - 2	0							
			196.75	Kern County Water Agency Lost Hills Water Dist. - 4	0							
				K.C.W.A. Reach 9 Subtotal:	57	57	0	0	0	0		
			Check No. 23	197.05								
10A	24		201.24	Kern County Water Agency Lost Hills Water Dist. - 7	10	10						
			202.05	Kern County Water Agency Lost Hills Water Dist. - 5	0							
			204.69	Kern County Water Agency Lost Hills Water Dist. - 6	0							
			205.26	Kern County Water Agency Lost Hills Water Dist. - 8	0							
			Check No. 24	207.94								
10A	25		209.71	Kern County Water Agency Belridge Water Storage Dist. - 1A	0							
			209.78	Kern National Wildlife Refuge USBR BV-1B	4,009	4,009						
				Kern County Water Agency Buena Vista WSD 1B	133		133					
			209.80	KCWA Semitropic WSD	1,932		1,932					
				KCWA Semitropic WSD Penstocks	16		16					
				USBR Total:	4,009	0	4,009	0	0	0		
				K.C.W.A. Reach 10A Subtotal:	2,091	2,091	0	0	0	0		

1/ An additional 350 AF of DRWD's Table A water went to Kern Water Bank for storage.

Table 22b. Governor Edmund G. Brown California Aqueduct
San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries						
	Beginning and Ending					Table A Amount	Recovery of Pump In	Purchase Pool A	Other	MWD Ent. 2/		
	No.	Structure	Mile									
11B	25	210.75	Kern County Water Agency Belridge - 2	0	315	315						
			Kern County Water Agency Belridge - 3	315								
			Kern County Water Agency Belridge - 4	0								
			Kern County Water Agency Belridge - 5	380		380						
			Kern County Water Agency Belridge - 5D	98								
		Check No. 25	217.79									
			K.C.W.A. Reach 11B Subtotal:	793		793	0	0	0	0		
12D	26	219.58	Kern County Water Agency Belridge - 6	0	208	208						
			Kern County Water Agency West Kern - 3	208								
		Check No. 26	224.92									
12E	27	230.37	Kern County Water Agency Buena Vista - 6	0	17,654	17,654				3,700		
			Check No. 27	231.73								
	28	235.75	Kern County Water Agency Buena Vista - 2	0								
			Kern County WA CVC	21,354								
		238.04	DRWD CVC	0								
			Tulare Co.	0								
			Lower Tule River	0								
			Fresno Co.	0								
			Pixley ID	0								
			Hacienda DWR Wells	0								
	Check No. 28	238.11										
			1/ Arvin Edison Total:	0		0	0	0	0	0		
			Reach 12E Subtotal:	21,354		17,654	0	0	0	3,700		
13B	29	238.19	Kern Water Bank Inflow	0	772	772			3/ 16,190 3/ 350			
			Kern Water Bank Outflow	16,540								
		241.02	Kern River Intertie (inflow)	0								
		242.85	KCWA Buena Vista WSD - 7	0								
			KCWA Buena Vista WSD - 5	772								
		243.09	Kern County Water Agency Buena Vista - 3	4,440								
	Check No. 29	244.54	Buena Vista WSD	0								
	30	249.85	Kern County Water Agency Buena Vista - 4	440								
			Buena Vista Pumping Plant	167,913								
			K.C.W.A. Reach 13B Subtotal:	22,192	5,652	5,652	0	0	16,540	0		
14A	31	254.47	Kern County Water Agency West Kern - 2	0								
		256.11	Kern County Water Agency Wheeler Ridge-Maricopa - 2	0								

1/ Arvin Edison Contractors include Rag Gulch WD, Kern-Tulare WD, Fresno County, Hills Valley ID, Tri Valley WD, Tulare County, Lower Tule River ID, and Pixley ID.

2/ MWD's Table A to AEWSD.

3/ Includes 350 AF of Dudley Ridge WD's Table A and 16,190 AF of KCWA Table A to Kern Water Bank for storage.

Table 22c. Governor Edmund G. Brown California Aqueduct
San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries					
	Beginning and Ending		No.	Structure	Mile		Table A Amount	Recovery of Pump In	MWD Ent. Exchange	Exchange	MWD Ent. 1/
	No.	Structure									
14A	31	Check No. 31	256.14				3	34	0	0	0
	32		258.61	Kern County Water Agency Wheeler Ridge-Maricopa - 3		3					
			260.44	Kern County Water Agency Wheeler Ridge-Maricopa - 4		34					
		Check No. 32	261.72								
				KCWA Reach 14A Subtotal:		37					
14B	33		264.42	Kern County Water Agency Wheeler Ridge-Maricopa - 5		407	407	24	0	0	0
			266.91	Kern County Water Agency Wheeler Ridge-Maricopa - 6		24					
		Check No. 33	267.36								
	34		270.24	Kern County Water Agency Wheeler Ridge-Maricopa - 7		165					
		Check No. 34	271.27								
				Reach 14B Total:		596					
14C	35		272.39	Kern County Water Agency Wheeler Ridge-Maricopa - 8		419	419	256	0	0	170
			276.09	Kern County Water Agency Wheeler Ridge-Maricopa - 9		426					
				Reach 14C Total:		845					
15A	36	Teerink Pumping Plant	278.13			172,578	1	697	0	0	0
			279.02	Kern County Water Agency Wheeler Ridge-Maricopa - 9A		1					
			280.06	Kern County Water Agency Wheeler Ridge-Maricopa - 10		697					
		Chrisman Pumping Plant	280.36			167,381					
16A	37		282.06	Kern County Water Agency Wheeler Ridge-Maricopa - 11		0	12	17	0	0	0
		Check No. 37	283.95								
			285.01	Kern County Water Agency Wheeler Ridge-Maricopa - 12		12					
	38		286.39	Kern County Water Agency Wheeler Ridge-Maricopa - 13A		0					
			287.06	Kern County Water Agency Wheeler Ridge-Maricopa - 13		0					
		Check No. 38	287.09								
	39		287.62	Kern County Water Agency Wheeler Ridge-Maricopa - 13B		17					
		Check No. 39	290.21								
	40		291.26	Kern County Water Agency Wheeler Ridge-Maricopa - 14		21					
			293.07	Kern County Water Agency Wheeler Ridge-Maricopa - 15		12					
				Kern County Water Agency Tehachapi Cummings CWD		290					
				K.C.W.A. Reach 16A Subtotal:		352					
17E	Edmonston Pumping Plant	293.45				165,926					

1/ MWD's Table A to AEWS.

Table 23. Governor Edmund G. Brown California Aqueduct

San Joaquin Field Division, Monthly Deliveries (Coastal Branch)

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Recovery of Pump In	MWD Ent.	Storage	Purchase Pool B		
	No.	Structure	Mile									
31A	C-1	Coastal Branch Control	0.02		3,009	666	13	752	0	0		
		Las Perillas Pumping Plant	1.16		3,009							
	C-2		3.79	Green Valley Water District	0							
		Badger Hill Pumping Plant	4.27		3,009							
	C-3	Coastal Check No. 3	7.21									
	C-4		9.34	Castaic Lake WA (Devil's Den WD #1)	666							
		Coastal Check No. 4	9.34									
	C-5	Coastal Check No. 5	12.20									
	C-6		13.30	Kern County Water Agency Berrenda Mesa - 3	13							
			14.83	Kern County Water Agency Berrenda Mesa - 1	752							
				Kern County Water Agency Berrenda Mesa - PO	0							
		Devil's Den Pumping Plant	14.86		1,538							
				K.C.W.A. Reach 31A Subtotal:	765	765	0	0	0	0		
				K.C.W.A. Total:	49,988	29,578	0	3,870	1/ 16,540	0		
33A	C-7	Bluestone Pumping Plant	19.05		1,427	1,251	281					
	C-8	Polonio Pass Pumping Plant	26.54		1,612							
	C-9	Tank Site 1	27.81	(CCWA) Polonio Pass Treatment Plant								
	C-10	Shandon T.O.	38.23	Santa Barbara County (CCWA)	1,251							
		Tank Site 2	58.63	Central Coast:	0							
34	C-11	Chorro Valley T.O.	69.31	San Luis Obispo County (CCWA)	281							
		Energy Dissipater	78.12									
35	C-12	Lopez T.O.	85.86	SLOCFC & WCD	0		0	0	0	0		
				CCWA Total:	1,532							
		Guadalupe T.O.	102.70	SBCFC & WCD	0							
		Santa Maria T.O.	107.43	SBCFC & WCD	0							
		So. Cal. Water T.O.	109.20	SBCFC & WCD	0							
38				SBCFC & WCD Total:	0		0	0	0	0		
		Tank Site 5	115.42									

1/ Includes 350 AF of Dudley Ridge WD's Table A and 16,190 AF of KCWA Table A to Kern Water Bank for storage.

Table 24. Southern Field Division Plant Data

(in acre-feet)

December 2003

Date	West Branch					East Branch											
	Oso Pumping Plant	Warne Powerplant		Castaic Powerplant		Alamo Powerplant			Pearblossom Pumping Plant	Mojave Siphon Powerplant			Devil Canyon Powerplant Generation	Cherry Valley	Green Spot	Crafton Hills	
		Generation	Leakage	Generation 1/	Pumpback 1/	Generation	Bypass Through Plant	Cottonwood Chute		Generation	Leakage	Bypass Flume					
28	1	2,879	3,253	0	4,817	1,404	0	0	2,310	2,104	1,934	0	0	2,057	4	37	26
	2	3,090	3,159	0	4,740	1,282	0	0	2,479	2,416	2,210	0	0	2,105	0	30	16
	3	2,719	2,937	0	5,061	528	0	0	2,956	2,566	2,183	0	0	2,364	3	40	26
	4	2,932	3,171	0	6,099	802	0	0	2,525	2,471	2,449	0	0	2,245	4	38	26
	5	2,559	3,114	0	5,399	2,602	0	0	3,051	2,570	2,307	0	0	2,255	0	37	19
	6	3,038	3,072	0	1,378	2,663	0	0	2,851	2,598	2,405	0	0	2,218	0	9	0
	7	2,932	2,577	0	885	1,558	0	0	2,912	2,677	2,418	0	0	1,964	0	9	0
	8	2,025	1,810	0	3,964	992	0	0	3,612	3,112	2,966	0	0	1,974	3	39	24
	9	1,972	1,972	0	3,504	0	0	0	3,674	3,388	3,096	0	0	2,005	0	26	39
	10	2,077	1,861	0	4,014	0	0	0	3,610	3,296	3,152	0	0	2,133	3	39	26
	11	2,927	2,899	0	4,385	2,398	0	0	2,567	2,284	2,129	0	0	2,032	4	39	26
	12	2,680	2,082	0	5,001	0	0	0	2,867	3,019	2,708	0	0	1,990	0	40	26
	13	2,559	2,102	0	297	0	0	0	3,372	3,064	2,511	0	0	1,930	0	9	0
	14	2,559	1,945	0	108	0	0	0	3,117	2,739	2,758	0	0	1,964	0	10	0
	15	2,714	2,981	0	6,128	1,775	0	0	2,638	2,419	2,489	0	0	2,053	4	42	26
	16	2,519	2,669	0	5,829	0	0	0	2,422	2,307	1,748	0	0	2,031	0	39	27
	17	2,863	2,296	0	3,189	0	0	0	2,752	2,613	2,617	0	0	1,966	4	38	27
	18	2,723	2,482	0	3,972	800	742	0	2,149	2,826	2,554	0	0	2,013	4	39	27
	19	2,700	2,773	0	4,872	883	2,773	0	95	2,312	2,258	0	0	1,985	0	26	15
	20	3,462	3,303	0	948	0	2,964	0	136	2,877	2,458	0	0	2,086	0	6	0
	21	3,579	3,260	0	1,181	3,328	2,786	0	97	2,875	2,422	0	0	2,052	0	6	0
	22	2,958	2,842	0	4,817	2,295	2,930	0	30	2,883	2,610	0	0	1,945	4	38	26
	23	2,533	2,820	0	5,035	1,324	2,703	0	0	2,659	2,306	0	0	1,767	0	39	27
	24	2,672	2,749	0	6,246	2,682	2,746	0	0	2,691	2,333	0	0	1,683	0	20	15
	25	2,882	2,738	0	4,181	1,366	2,979	0	0	2,598	2,058	0	0	1,470	0	6	0
	26	2,855	2,643	0	5,928	980	1,866	0	0	2,284	1,957	0	0	1,472	0	5	0
	27	3,787	3,194	0	3,530	0	1,746	0	0	1,519	1,175	0	0	788	0	0	0
	28	2,734	3,263	0	476	1,069	747	0	68	421	345	0	0	599	0	8	0
	29	2,554	2,721	0	4,831	0	736	0	58	950	927	0	0	1,554	0	24	34
	30	2,749	2,677	0	5,211	0	1,385	0	0	1,249	1,209	0	0	1,788	0	0	0
	31	2,747	2,768	0	4,805	1,779	2,284	0	0	1,979	2,157	0	0	2,228	0	16	9
	Total	85,979	84,133	0	120,831	32,510	29,387	0	52,348	75,766	68,849	0	0	58,716	37	754	487

1/ Values supplied by LADWP, not verified by DWR.

Table 25. Pyramid Lake

Daily Operation

Capacity: 171,200 ac-ft

(in acre-feet except as noted)

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow				Computed Losses (-) And Gains (+)	
				Project		Natural	Project		Natural	United Water Agency		
				Castaic Powerplant Pumpback 1/	Warne Powerplant	Stream Flow	Castaic Powerplant Generation 1/	Recreation Deliveries	To Piru Creek			
Nov 30	2575.65	166,885										
1	2575.46	166,643	-242	1,404	3,253	14	4,817	0	15	0	-81	
2	2575.19	166,299	-344	1,282	3,159	14	4,740	0	15	0	-44	
3	2573.48	164,131	-2,168	0	2,937	14	5,061	0	15	0	-43	
4	2571.51	161,658	-2,473	528	3,171	14	6,099	0	14	0	-73	
5	2570.26	160,101	-1,557	802	3,114	14	5,399	0	14	0	-74	
6	2573.65	164,346	4,245	2,602	3,072	14	1,378	0	15	0	-50	
7	2576.99	168,600	4,254	2,663	2,577	14	885	0	15	0	-100	
8	2576.51	167,985	-615	1,558	1,810	14	3,964	0	15	0	-18	
9	2575.28	166,413	-1,572	0	1,972	14	3,504	0	15	0	-39	
10	2574.32	165,194	-1,219	992	1,861	14	4,014	0	15	0	-57	
11	2573.15	163,715	-1,479	0	2,899	15	4,385	0	15	0	7	
12	2570.73	160,685	-3,030	0	2,082	15	5,001	0	15	0	-111	
13	2572.18	162,496	1,811	0	2,102	15	297	0	15	0	6	
14	2575.46	166,643	4,147	2,398	1,945	16	108	0	15	0	-89	
15	2574.34	165,219	-1,424	1,775	2,981	16	6,128	0	15	0	-53	
16	2571.81	162,033	-3,186	0	2,669	16	5,829	0	15	0	-27	
17	2570.73	160,685	-1,348	0	2,296	16	3,189	0	15	0	-456	
18	2570.10	159,902	-783	800	2,482	16	3,972	0	15	0	-94	
19	2569.10	158,665	-1,237	883	2,773	16	4,872	0	15	0	-22	
20	2570.92	160,921	2,256	0	3,303	16	948	0	15	0	-100	
21	2575.16	166,260	5,339	3,328	3,260	17	1,181	0	15	0	-70	
22	2575.35	166,502	242	2,295	2,842	17	4,817	0	15	0	-80	
23	2574.61	165,561	-941	1,324	2,820	18	5,035	0	15	0	-53	
24	2573.97	164,750	-811	2,682	2,749	19	6,246	0	15	0	0	
25	2574.04	164,839	89	1,366	2,738	92	4,181	0	16	0	90	
26	2572.22	162,546	-2,293	980	2,643	81	5,928	0	73	0	4	
27	2571.92	162,170	-376	0	3,194	34	3,530	0	51	0	-23	
28	2574.89	165,917	3,747	1,069	3,263	24	476	0	30	0	-103	
29	2573.17	163,740	-2,177	0	2,721	22	4,831	0	25	0	-64	
30	2571.12	161,171	-2,569	0	2,677	21	5,211	0	24	0	-32	
31	2570.89	160,884	-287	1,779	2,768	19	4,805	0	24	0	-24	
Total				-6,001	32,510	84,133	661	120,831	0	601	0	-1,873

1/ Values supplied by LADWP, not verified by DWR.

Table 26. Elderberry Forebay

Daily Operation

(in acre-feet except as noted)

Capacity: 32,476 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow			Computed Losses (-) And Gains (+)	
				Castaic Powerplant Generation 1/	Natural	Castaic Powerplant Pumpback 1/	To Castaic Lake			
							Natural	Project 1/		
Nov 30	1511.38	19,719								
1	1509.91	19,150	-569	4,817	0	1,404	0	3,984	2	
2	1508.40	18,574	-576	4,740	0	1,282	0	4,033	-1	
3	1520.67	23,527	4,953	5,061	0	0	0	0	-108	
4	1524.20	25,062	1,535	6,099	0	528	0	4,038	2	
5	1525.43	25,606	544	5,399	0	802	0	4,051	-2	
6	1511.55	19,786	-5,820	1,378	0	2,602	0	4,597	1	
7	1509.00	18,801	-985	885	0	2,663	0	0	793	
8	1502.55	16,425	-2,376	3,964	0	1,558	0	4,783	1	
9	1513.09	20,393	3,968	3,504	0	0	0	0	464	
10	1512.02	19,970	-423	4,014	0	992	0	3,447	2	
11	1513.42	20,524	554	4,385	0	0	0	3,829	-2	
12	1525.01	25,420	4,896	5,001	0	0	0	0	-105	
13	1516.47	21,761	-3,659	297	0	0	0	3,955	-1	
14	1510.86	19,517	-2,244	108	0	2,398	0	0	46	
15	1512.61	20,202	685	6,128	0	1,775	0	3,668	0	
16	1518.13	22,451	2,249	5,829	0	0	0	3,582	2	
17	1517.17	22,050	-401	3,189	0	0	0	3,588	-2	
18	1517.12	22,030	-20	3,972	0	800	0	3,192	0	
19	1519.39	22,981	951	4,872	0	883	0	3,038	0	
20	1521.55	23,905	924	948	0	0	0	0	-24	
21	1516.55	21,794	-2,111	1,181	0	3,328	0	0	36	
22	1514.16	20,821	-973	4,817	0	2,295	0	3,497	2	
23	1514.67	21,027	206	5,035	0	1,324	0	3,504	-1	
24	1515.43	21,335	308	6,246	0	2,682	0	3,255	-1	
25	1513.56	20,580	-755	4,181	0	1,366	0	3,571	1	
26	1515.75	21,466	886	5,928	0	980	0	4,062	0	
27	1517.90	22,354	888	3,530	0	0	0	2,662	20	
28	1516.47	21,761	-593	476	0	1,069	0	0	0	
29	1519.08	22,850	1,089	4,831	0	0	0	3,742	0	
30	1523.90	24,930	2,080	5,211	0	0	0	3,134	3	
31	1522.91	24,496	-434	4,805	0	1,779	0	3,457	-3	
Total				4,777	120,831	0	32,510	0	84,669	
									1,125	

1/ Values supplied by LADWP, not verified by DWR.

Table 27. Castaic Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 323,699 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow		Computed Losses (-) And Gains (+)	
				From Elderberry Forebay		Natural	Deliveries		
				Natural	Project 1/				
Nov 30	1488.10	266,818							
1	1489.02	268,661	1,843	0	3,984	0	2,150	0 9	
2	1489.87	270,370	1,709	0	4,033	0	2,281	0 -43	
3	1488.74	268,099	-2,271	0	0	0	2,213	0 -58	
4	1489.56	269,746	1,647	0	4,038	0	2,197	113 -81	
5	1490.39	271,414	1,668	0	4,051	0	2,175	112 -96	
6	1491.34	273,332	1,918	0	4,597	0	2,027	0 -652	
7	1490.42	271,475	-1,857	0	0	0	1,889	0 32	
8	1491.58	273,818	2,343	0	4,783	0	1,869	0 -571	
9	1490.62	271,878	-1,940	0	0	0	1,904	0 -36	
10	1491.42	273,494	1,616	0	3,447	0	1,776	0 -55	
11	1492.39	275,462	1,968	0	3,829	0	1,777	0 -84	
12	1491.52	273,697	-1,765	0	0	0	1,772	0 7	
13	1492.66	276,011	2,314	0	3,955	0	1,641	0 0	
14	1491.91	274,487	-1,524	0	0	0	1,511	0 -13	
15	1492.88	276,459	1,972	0	3,668	1	1,542	0 -155	
16	1493.77	278,275	1,816	0	3,582	1	1,659	0 -108	
17	1494.69	280,160	1,885	0	3,588	1	1,636	0 -68	
18	1495.38	281,578	1,418	0	3,192	1	1,714	0 -61	
19	1495.88	282,609	1,031	0	3,038	1	1,933	0 -75	
20	1495.02	280,838	-1,771	0	0	1	1,777	0 5	
21	1494.21	279,175	-1,663	0	0	1	1,654	0 -10	
22	1495.13	281,064	1,889	0	3,497	1	1,597	0 -12	
23	1496.00	282,857	1,793	0	3,504	1	1,710	0 -2	
24	1496.80	284,511	1,654	0	3,255	1	1,618	0 16	
25	1497.98	286,962	2,451	0	3,571	1	1,377	0 256	
26	1499.12	289,342	2,380	0	4,062	7	1,152	0 -537	
27	1499.76	290,682	1,340	0	2,662	2	1,155	0 -169	
28	1499.28	289,676	-1,006	0	0	2	997	0 -11	
29	1500.42	292,069	2,393	0	3,742	1	1,291	0 -59	
30	1501.28	293,882	1,813	0	3,134	1	1,332	0 10	
31	1502.03	295,468	1,586	0	3,457	1	1,783	0 -89	
Total				28,650	0	84,669	25	53,109	
							225	-2,710	

1/ Values supplied by LADWP, not verified by DWR.

Table 28. Governor Edmund G. Brown California Aqueduct
 Southern Field Division, Monthly Deliveries (West Branch)

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Rec.	Local	Transfer	Flexible Payback		
	No.	Structure	Mile									
29A	42	Oso Pumping Plant	1.49		85,979							
29F	W2	Quail Lake	5.02	Antelope Valley-East Kern Water Agency	Re-moved							
		Quail Lake Embankment	7.82	Antelope Valley-East Kern Water Agency	Stub							
29G		Warne Power Plant	14.07		84,133							
29H	W3	Pyramid Lake		Calif. State Park Pyramid Recreation	0							
			14.10	United Water Conservation Dist.	0							
		Pyramid Dam	17.10	Piru Creek Fish Enhancement	0							
		Castaic Power Plant	25.82	(32,510 AF pumpback) 2/	120,831							
29J	W4	Elderberry Forebay										
		Forebay Dam	28.12									
30 1/	W5	Castaic Lake		Calif. State Park Castaic Lake Recreation	32		32					
		Castaic Dam	31.47									
		Castaic Lake Outlet		MWD - 78"	11,531							
				MWD - 132"	38,995							
			31.55	Castaic Lake WA - T1	1,596							
				Castaic Lake WA	799							
				United Water Conservation Dist.	0							
				MWD - Ventura County FCD	156							
				LA Co. Parks & Recreation	0							
				Releases to Lagoon	225							
				Reach 30 Subtotal:	53,109	53,077	32	0	0	0		
	W6	Castaic Lagoon		Recreation to Lagoon	225		225					
		Castaic Lagoon Outlet	31.87									

1/ Reach 30 actually terminates at mile 31.50. It is shown here as including the outlet works at mile 31.55.

All deliveries from the outlet works and from the Lagoon are billed to Reach 30.

2/ Value supplied by LADWP, not verified by SWR.

Table 29. Silverwood Lake

Daily Operation

(in acre-feet except as noted)

Capacity: 74,970 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow					Computed Losses (-) And Gains (+)	Las Flores Ranch Exchange 1/	
							Project			Del. To CLAWA	Rec.	San Bernardino Tunnel	Natural To Mojave River	
				Mojave Siphon Power-plant	Mojave Bypass Flume	Natural Stream Flow								
Nov 30	3349.76	69,951												
1	3349.45	69,660	-291	1,934	0	0	4	1	2,057	0	576	413	0	
2	3349.37	69,585	-75	2,210	0	0	5	0	2,105	0	397	222	0	
3	3348.68	68,940	-645	2,183	0	0	5	0	2,364	0	397	-62	0	
4	3348.64	68,902	-38	2,449	0	0	5	0	2,245	0	399	162	0	
5	3348.56	68,828	-74	2,307	0	0	5	0	2,255	0	397	276	0	
6	3348.48	68,753	-75	2,405	0	0	4	0	2,218	0	399	141	0	
7	3348.71	68,968	215	2,418	0	0	5	0	1,964	0	397	163	0	
8	3349.53	69,735	767	2,966	0	0	4	0	1,974	0	397	176	0	
9	3350.42	70,572	837	3,096	0	0	4	0	2,005	0	397	147	0	
10	3351.00	71,121	549	3,152	0	1	4	0	2,133	0	397	-70	0	
11	3350.50	70,648	-473	2,129	0	0	3	1	2,032	0	397	-169	0	
12	3351.04	71,159	511	2,708	0	0	4	0	1,990	0	399	196	0	
13	3351.47	71,568	409	2,511	0	0	4	0	1,930	0	397	229	0	
14	3351.78	71,863	295	2,758	0	1	4	0	1,964	0	397	-99	0	
15	3351.93	72,006	143	2,489	0	0	4	0	2,053	0	399	110	0	
16	3351.51	71,606	-400	1,748	0	0	5	0	2,031	0	397	285	0	
17	3351.93	72,006	400	2,617	0	1	5	0	1,966	0	397	150	0	
18	3351.99	72,063	57	2,554	0	0	5	0	2,013	0	397	-82	0	
19	3351.75	71,834	-229	2,258	0	0	4	1	1,985	0	466	-31	0	
20	3351.54	71,634	-200	2,458	0	1	6	0	2,086	0	496	-71	0	
21	3351.40	71,501	-133	2,422	0	0	5	0	2,052	0	498	0	0	
22	3351.52	71,615	114	2,610	0	0	5	0	1,945	0	538	-8	0	
23	3352.13	72,197	582	2,306	0	1	5	0	1,767	0	595	642	0	
24	3352.21	72,274	77	2,333	0	1	4	0	1,683	0	595	25	0	
25	3353.64	73,649	1,375	2,058	0	1,233	5	0	1,470	0	595	154	0	
26	3354.45	74,434	785	1,957	0	587	4	0	1,472	0	284	1	0	
27	3354.88	74,853	419	1,175	0	60	4	0	788	0	26	2	0	
28	3354.30	74,288	-565	345	0	18	4	0	599	0	583	258	0	
29	3353.25	73,272	-1,016	927	0	14	4	0	1,554	0	795	396	0	
30	3351.47	71,568	-1,704	1,209	0	13	4	0	1,788	0	690	-444	0	
31	3350.42	70,572	-996	2,157	0	11	5	0	2,228	0	990	59	0	
Total				621	68,849	0	1,942	138	3	58,716	0	14,484	3,171	0

1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.

Table 30. Lake Perris

Daily Operation

(in acre-feet except as noted)

Capacity: 131,452 ac-ft

December 2003

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow 1/	Outflow 2/	Computed Losses (-) Gains (+) 1/
Nov 30	1583.44	116,554				
1	1583.00	115,579	-975		404	
2	1582.61	114,717	-862		405	
3	1582.29	114,012	-705		405	
4	1581.99	113,352	-660		405	
5	1581.85	113,044	-308		405	
6	1581.45	112,168	-876		404	
7	1581.19	111,599	-569		403	
8	1581.01	111,206	-393		406	
9	1580.77	110,683	-523		142	
10	1580.57	110,247	-436		206	
11	1580.46	110,008	-239		503	
12	1580.29	109,639	-369		282	
13	1580.19	109,422	-217		207	
14	1580.04	109,096	-326		251	
15	1579.93	108,858	-238		194	
16	1579.85	108,685	-173		157	
17	1579.83	108,641	-44		204	
18	1579.63	108,209	-432		278	
19	1579.40	107,712	-497		247	
20	1579.20	107,281	-431		306	
21	1579.00	106,850	-431		254	
22	1578.80	106,418	-432		227	
23	1579.02	106,893	475		257	
24	1578.82	106,461	-432		248	
25	1578.79	106,396	-65		250	
26	1578.70	106,203	-193		185	
27	1578.69	106,182	-21		42	
28	1578.59	105,967	-215		68	
29	1578.84	106,504	537		68	
30	1579.30	107,496	992		68	
31	1579.70	108,360	864		68	
Total			-8,194	2,771	7,949	-3,016

1/ Readings are not taken on a daily basis. End of month only.

2/ Includes deliveries to MWD from Reach 28J and recreation water to California State Park at lake Perris.

Table 31a. Governor Edmund G. Brown California Aqueduct

Southern Field Division, Monthly Deliveries (East Branch)

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Rec.	Transfer	Purchase Pool A	Transfer Local Out		
	No.	Structure	Mile									
17E	40	Edmonston Pumping Plant	293.45		165,926							
	41		298.65		Kern County Water Agency Tej.-Cas		Stub					
17F		Check No. 41	303.41									
18A	42	Check No. 42	304.99									
19	43	Alamo Powerplant	305.73	(Does not include 52,348 AF flow down Cottonwood Chute)	29,387							
			308.05	Antelope Valley-East Kern WA	0							
		Check No. 43	309.70									
	44		311.84	LADWP Connection	0							
			313.50	AVEK 245th Street West	0							
		Check No. 44	314.81									
	45		314.93	AVEK 235th Street West	0							
			315.57	AVEK 225th Street West	0							
		Check No. 45	319.74									
	46		323.19	Antelope Valley-East Kern WA Fairmont	395		395	24	0	0		
				Mojave Water Agency Fairmont	24							
		Check No. 46	323.84									
				Reach 19 Total:	419							
20A	47	Check No. 47	326.77				23					
	48		326.91	Antelope Valley-East Kern WA Willow Springs Siphon	23							
			329.65	Antelope Valley-East Kern WA 120th Street West	Re- moved							
		Check No. 48	330.82									
	49	Check No. 49	335.93									
	50		336.73	AVEK WA - Quartz Hill (Wheeled for Palmdale WD)	0		2,589	12	0	0		
				Antelope Valley-East Kern WA	2,589							
			339.68	Antelope Valley-East Kern WA	12							
20B		Check No. 50	341.51				43					
	51	Check No. 51	342.07									
	52		342.80	Antelope Valley-East Kern WA 30th Street West	Not in Use							
			343.50	Antelope Valley-East Kern WA Temporary 10	43							
				Antelope Valley-East Kern WA Temporary 12	54							
		Check No. 52	343.74									
	53		346.98	PWD Palmdale	177							
			348.14	Antelope Valley-East Kern WA Acton Treatment Plant	90							
21		Check No. 53	348.17				177	90	0	0		
	54	Check No. 54	350.25									
	55	Check No. 55	352.70									
	56	Check No. 56	354.76									
			354.97	Littlerock Creek I.D.	0							
22A	57	Check No. 57	356.93				241					
	58		357.60	Antelope Valley-East Kern WA	0							
			357.72	Antelope Valley-East Kern WA 96th Street East	0							
			359.82	Antelope Valley-East Kern WA East Side Treatment Plant	241							

Table 31b. Governor Edmund G. Brown California Aqueduct

Southern Field Division, Monthly Deliveries (East Branch, Continued)

(In acre-feet)

December 2003

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries									
	Beginning and Ending					Table A Amount	Recreation	Ex-change 1/	Transfer 2/	Local					
	No.	Structure	Mile												
22B	58	Pearblossom Pumping Plant	360.61		75,766	258		1,608		4,110					
	59	Check No. 59	366.09												
	60		366.50		Antelope Valley-East Kern WA		0								
		Check No. 60	373.94												
	61	Check No. 61	379.00												
	62	Check No. 62	384.26												
	63	Check No. 63	389.20		Mojave Water Agency										
					Mojave River		1,866								
	66		394.60		Mojave Water Agency										
					Temporary		0								
			395.10												
23	64	Check No. 64	400.32		Mojave Water Agency	36	14,473	102		4,855					
	65	Check No. 65			Morongo 24" and 42"										
24	67	Silverwood Lake	401.10		Mojave Water Agency										
					Hesperia										
25	68	Devil Canyon Powerplant	403.41		Crestline Lake Arrowhead Water Agency										
26A					138										
					Mojave Water Agency Outlet Works										
					Calif. State Park Silverwood Agency (Rec.)										
28G															
28H	Santa Ana Valley Pipeline	407.65			58,716										
					28J										
											58,716				
28J	69	Lake Perris	412.88		MWD-SC Rialto	38,787	39	5,000		4,855					
					Desert Water Agency (MWD Wheeling Exchange)										
					San Gabriel Valley Water District										
					Coachella Valley WD (MWD Wheeling Exchange)										
					San Bernardino Valley MWD 24" and 72"										
					San Bernardino Valley MWD 48"										
					MWD (SBVMWD Exchange)										
					San Gorgonio Pass Water Agency										
					39										
28G	28H	Santa Ana Valley Pipeline	425.46			4,418	4,418			4,855					
					MWD-SC Box Springs										
					MWD-SC Perris Bypass Pipeline										
					0										
					MWD-SC 18"										
					275										
28J	28J	Lake Perris	433.06		MWD-SC 54"	2,714	25	5,000		4,855					
					MWD-SC 78"										
					4,935										
					Calif. State Park Lake Perris Recreation										
					25										
28G	28H	Santa Ana Valley Pipeline	440.05		MWD Total:	113,262	108,262	0	0	5,000					

1/ Metropolitan WD water exchanged to Mojave WA.

2/ SBVMWD table A water transferred to MWD.

Table 32. Water Quality At Selected SWP Locations

December 2003

Constituent	Units	Thermalito Afterbay At Outlet	North Bay Aqueduct Barker Slough Pumping Plant	Banks Pumping Plant	Delta Mendota Canal At McCabe Rd.	California Aqueduct				Devil Canyon Afterbay Near San Bernardino
						O'Neill Forebay Outlet (Check 13)	Kettleman City (Check 21)	Near Hwy 119 (Check 29)	Tehachapi Afterbay (Check 41)	
Alkalinity	mg/l as CaCO ₃	42	83	70	125	76	81	82	74	67
Antimony	mg/l	NR	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NR	NR
Arsenic	mg/l	<0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001
Beryllium	mg/l	NR	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boron	mg/l	<0.1	<0.1	0.1	0.5	0.2	0.2	0.2	0.2	0.1
Bromide	mg/l	NR	0.03	0.41	0.39	0.37	0.29	0.35	0.35	0.28
Calcium	mg/l	8	14	18	41	20	20	22	22	19
Carbon - Dissolved Organic	mg/l as C	NR	3	3	4	3	3	3	3	3
Carbon - Total Organic	mg/l as C	NR	3	4	4	3	3	3	3	4
Chloride	mg/l	1	16	130	138	118	92	115	111	93
Chromium	mg/l	<0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.001
Copper	mg/l	<0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001
Fluoride	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness	mg/l as CaCO ₃	36	76	103	193	108	108	117	117	101
Iron	mg/l	<0.005	0.008	0.035	<0.005	0.012	<0.005	0.012	0.008	<0.005
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium	mg/l	4	10	14	22	14	14	15	15	13
Manganese	mg/l	<0.005	0.011	0.014	<0.005	0.005	<0.005	<0.005	<0.005	0.009
Nitrate + Nitrite	mg/l as N	0.04	0.52	0.70	NR	NR	0.73	NR	0.83	0.25
Phosphorus-Ortho	mg/l as P	<0.01	0.07	0.06	NR	NR	0.09	NR	<0.01	0.03
Phosphorus-Total	mg/l	0.02	0.09	0.08	NR	NR	0.11	NR	0.11	0.04
Selenium	mg/l	NR	<0.001	0.001	NR	NR	NR	0.001	NR	NR
Sodium	mg/l	3	18	74	106	72	62	71	73	59
Specific Conductance	µS/cm	95	272	671	984	661	598	674	590	487
Sulfate	mg/l	2	18	34	121	42	44	51	49	34
Total Dissolved Solids	mg/l	56	157	378	557.5	379	335	383.5	338	293
Turbidity	NTU	3	23	6	19.5	6	4	3	8	<1
Zinc	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

mg/l milligrams per liter

µg/l micrograms per liter

µS/cm microSiemens per centimeter

NR - Not Reported

NTU - nephelometric turbidity units

Table 33. Water Quality At Selected Delta Stations

December 2003

Date	Tides (feet above mean sea level)		Flow In CFS		Rio Vista	Electrical Conductivity in milliSiemens/cm								Cl in mg/l	
			Net Delta Outflow Index			Antioch	Chipps Island	Emmaton		Jersey Point		Clifton Court	Cache Slough	Delta Mendota Canal	
	(Antioch) Daily Mean		Mean Daily	Monthly Average		md	md	md	14dm	md	14dm	md	md	md	Contra Costa Canal Intake
	Hi	Half				md	md	md	14dm	md	14dm	md	md	md	md
1	2.43	0.94	6,029	6,029	7,527	4.94	12.16	2.13	1.94	1.55	1.68	0.59	0.75	0.63	143
2	2.39	0.65	7,991	7,010	9,922	4.89	11.56	1.69	1.98	1.53	1.68	0.60	0.82	0.62	145
3	2.51	0.66	8,932	7,651	11,169	4.82	0.00	1.29	1.98	1.52	1.68	0.54	0.78	0.63	147
4	2.68	0.75	9,645	8,149	12,281	5.32	0.00	1.20	1.94	1.66	1.67	0.58	0.70	0.62	150
5	3.00	0.95	11,304	8,780	13,520	5.27	11.19	1.15	1.89	1.83	1.68	0.59	0.68	0.62	150
6	3.29	1.33	11,137	9,173	13,744	5.99	12.10	1.48	1.91	2.18	1.72	0.54	0.70	0.61	150
7	3.45	1.50	10,957	9,428	13,389	6.11	12.50	1.34	1.89	2.25	1.76	0.59	0.68	0.61	150
8	3.26	1.27	14,794	10,099	13,931	5.27	10.75	0.72	1.77	2.03	1.77	0.59	0.63	0.64	151
9	3.37	1.28	18,360	11,017	16,365	4.62	9.25	0.73	1.62	1.96	1.77	0.58	0.59	0.66	150
10	3.67	1.86	22,806	12,195	20,066	4.55	9.88	0.86	1.50	2.03	1.78	0.55	0.58	0.64	157
11	3.40	1.64	25,685	13,422	20,361	3.53	7.71	0.50	1.38	1.65	1.78	0.60	0.66	0.65	158
12	3.04	1.30	21,975	14,135	18,885	2.59	5.68	0.53	1.28	1.45	1.77	0.60	0.66	0.67	161
13	2.80	1.21	22,114	14,748	20,831	2.21	4.82	0.46	1.16	1.33	1.75	0.60	0.63	0.66	161
14	2.50	1.34	22,265	15,285	22,568	2.03	4.67	0.34	1.03	1.22	1.73	0.62	0.65	0.64	161
15	1.83	0.67	23,120	15,808	24,036	1.55	2.67	0.28	0.90	1.02	1.69	0.69	0.71	0.69	163
16	1.82	0.46	21,962	16,192	25,460	1.30	2.14	0.25	0.80	0.96	1.65	0.84	0.60	0.68	163
17	2.29	0.59	27,412	16,852	29,882	1.06	1.82	0.21	0.72	0.94	1.61	0.65	0.63	0.66	165
18	2.47	0.68	27,497	17,444	29,376	1.01	1.84	0.19	0.65	0.91	1.55	0.63	0.66	0.64	165
19	3.12	0.94	24,479	17,814	26,502	0.91	2.26	0.18	0.58	0.89	1.49	0.63	0.66	0.63	168
20	3.44	1.19	20,671	17,957	24,217	0.87	2.50	0.19	0.48	0.85	1.39	0.55	0.69	0.64	172
21	3.73	1.34	18,627	17,989	23,108	0.87	2.91	0.21	0.40	0.81	1.29	0.55	0.74	0.65	170
22	3.84	1.39	18,492	18,012	22,875	0.87	2.82	0.24	0.37	0.76	1.20	0.55	0.70	0.65	170
23	4.38	1.75	19,207	18,063	24,092	0.90	3.16	0.26	0.34	0.73	1.11	0.55	0.67	0.63	175
24	4.78	2.25	20,880	18,181	24,827	1.10	4.06	0.28	0.29	0.71	1.02	0.55	0.59	0.59	175
25	4.19	2.01	24,918	18,450	28,250	0.86	2.79	0.26	0.28	0.66	0.95	0.55	0.40	0.60	180
26	3.46	1.54	26,291	18,752	28,671	0.74	1.45	0.26	0.26	0.61	0.89	0.55	0.48	0.62	175
27	2.70	1.10	33,149	19,285	34,213	0.64	0.62	0.25	0.24	0.57	0.83	0.55	0.53	0.64	175
28	2.10	0.77	35,725	19,872	36,506	0.57	0.37	0.21	0.23	0.54	0.78	0.55	0.61	0.64	178
29	2.89	1.39	35,608	20,415	37,579	0.50	0.48	0.17	0.23	0.53	0.75	0.55	0.57	0.61	175
30	2.96	1.18	47,402	21,314	45,963	0.49	0.36	0.15	0.22	0.49	0.71	0.55	0.31	0.59	178
31	3.14	1.25	45,850	22,106	42,609	0.41	0.26	0.18	0.22	0.46	0.68	0.55	0.45	0.58	172

Clifton Court Cl(mg/l)=200X EC - 25

e = Estimated

N.R. = No Record.

N.C. = Not computed due to insufficient data.

f = Excess Delta conditions with fish concerns.

r = Excess delta conditions with export/inflow ratio concerns.

s = Balanced water conditions with storage withdrawals.

dm = Daily Mean

md = Mean Daily

Table 34. Pesticides, Herbicides, and Other Organic Substances Detected In the SWP

December 2003

Sampling Location	Sample Date 1/	Chemical Detected	Concentration µg/l 2/
North Bay Aqueduct At Barker Slough Pumping Plant	September 16, 2003	None Detected	
California Aqueduct At Banks Pumping Plant	September 16, 2003	None Detected	
O'Neill Forebay Outlet Check 13	September 16, 2003	None Detected	
Delta Mendota Canal At McCabe Road	September 16, 2003	None Detected	
California Aqueduct Near Kettleman City (Check 21)	September 16, 2003	None Detected	
California Aqueduct At Near Highway 119 (Check 29)	September 16, 2003	None Detected	
California Aqueduct At Tehachapi Afterbay (Check 41)	September 16, 2003	None Detected	

1/ Locations are normally sampled during March, June, and September. Monthly reports will include data for the month in which samples were most recently taken.

2/ Micrograms per liter.

Table 35. Oroville and Delta Field Divisions Energy Data

(in kWh)

December 2003

Date	Oroville Thermalito Complex		Barker Slough Pumping Plant	Cordelia Pumping Plant Load	Banks Pumping Plant		South Bay Pumping Plant Load	Del Valle Pumping Plant Load
	Generation	Load			Total Load	SWP Load		
1	5,671,872	0	31,171	33,488	1,381,056	1,381,056	204,240	194
2	3,973,536	0	28,574	29,813	953,472	953,472	198,185	194
3	4,658,976	0	28,917	29,806	1,104,192	1,104,192	212,010	176
4	5,183,136	0	33,754	35,126	1,324,224	1,324,224	212,560	216
5	4,762,656	1,440	36,253	36,554	1,419,456	1,419,456	327,660	246
6	773,568	29,952	34,412	35,588	1,118,016	1,118,016	303,290	214
7	3,612,384	7,488	34,405	37,247	1,268,928	1,268,928	291,915	223
8	4,335,840	19,008	32,144	34,832	595,584	595,584	301,410	243
9	5,392,224	11,808	27,664	32,193	304,896	304,896	284,450	73
10	4,032,288	16,128	28,406	32,109	283,008	283,008	286,500	0
11	4,036,320	9,216	25,326	28,070	672,768	672,768	285,715	0
12	4,686,624	0	28,539	31,927	1,195,776	1,195,776	296,090	0
13	1,707,552	576	28,406	32,305	1,704,384	1,704,384	312,025	0
14	4,520,448	5,760	27,475	32,585	2,218,560	2,218,560	240,560	0
15	5,862,528	2,880	28,147	32,053	3,699,840	3,699,840	324,680	0
16	5,065,920	0	27,321	29,225	3,933,888	3,933,888	369,550	0
17	3,878,208	0	28,581	31,031	3,333,504	3,333,504	309,655	0
18	2,869,056	2,592	31,402	33,187	2,892,480	2,892,480	167,830	0
19	4,072,320	288	31,829	33,096	2,536,512	2,536,512	105,455	0
20	2,212,128	7,488	29,764	33,817	3,094,080	3,094,080	104,895	0
21	1,357,632	8,928	24,843	29,862	3,272,640	3,272,640	87,135	0
22	2,621,952	7,776	26,397	29,589	3,627,264	3,627,264	102,485	0
23	3,955,104	5,760	24,766	28,511	3,925,824	3,925,824	92,060	0
24	2,604,384	6,624	22,526	27,986	3,930,432	3,930,432	89,850	286
25	891,360	9,792	22,666	27,034	3,933,312	3,933,312	91,330	711
26	3,165,696	4,320	24,465	30,625	3,926,784	3,926,784	92,600	749
27	2,423,232	6,624	26,124	30,821	3,920,256	3,920,256	98,520	682
28	566,496	12,384	28,420	34,587	3,916,992	3,916,992	107,430	694
29	4,173,984	7,488	28,945	32,347	3,316,416	3,316,416	92,140	778
30	4,227,264	0	28,560	31,227	3,364,032	3,364,032	104,940	778
31	4,596,768	0	20,699	24,626	1,465,152	1,465,152	97,225	734
Total	111,891,456	184,320	880,901	981,267	73,633,728	73,633,728	6,194,390	7,191

Table 36. San Luis Field Division Energy Data

(in kWh)

December 2003

Date	Dos Amigos Pumping Plant		Gianelli Pumping-Generating Plant			
	Total Load	SWP Load 1/	Total Generation	SWP Generation 1/	Total Load	SWP Load 1/
1	1,058,544	923,544	1,423,872	1,423,872	1,489,824	-29,176
2	1,290,672	1,155,672	253,728	253,728	2,218,176	13,176
3	1,347,696	1,212,696	718,272	718,272	2,028,672	19,672
4	1,377,504	1,242,504	1,299,456	1,299,456	1,473,984	-45,016
5	1,314,000	1,179,000	2,111,904	2,111,904	2,154,528	-50,472
6	1,438,272	1,303,272	970,848	970,848	2,155,104	-49,896
7	1,382,256	1,238,256	985,248	985,248	2,052,864	484,864
8	1,178,208	1,043,208	913,536	913,536	3,030,912	1,542,912
9	1,206,000	1,071,000	1,773,504	1,773,504	2,317,248	157,248
10	1,197,936	1,062,936	1,759,968	1,759,968	1,297,440	1,440
11	1,142,352	1,007,352	996,480	996,480	1,819,296	523,296
12	1,278,000	1,170,000	1,630,368	1,630,368	1,302,912	6,912
13	1,226,592	1,118,592	622,656	622,656	1,026,720	18,720
14	1,275,120	1,203,120	546,048	546,048	2,101,536	373,536
15	1,124,064	1,052,064	0	0	2,456,352	728,352
16	1,129,824	1,057,824	0	0	4,668,192	2,508,192
17	982,080	910,080	0	0	4,825,152	2,665,152
18	1,222,992	1,150,992	264,960	264,960	3,683,808	1,523,808
19	1,378,800	1,306,800	339,552	339,552	2,057,184	-102,816
20	1,415,808	1,343,808	261,792	261,792	2,688,480	864,480
21	1,248,624	1,248,624	576,000	576,000	3,683,808	563,808
22	1,271,088	1,271,088	0	0	2,790,720	630,720
23	952,272	952,272	0	0	3,168,288	1,008,288
24	1,093,104	1,093,104	0	0	3,322,080	1,162,080
25	1,036,080	1,036,080	0	0	5,735,232	2,279,232
26	788,544	788,544	0	0	3,744,864	1,584,864
27	991,296	991,296	0	0	5,929,632	3,769,632
28	837,216	837,216	0	0	5,690,016	2,234,016
29	792,720	657,720	0	0	3,615,840	2,319,840
30	976,464	841,464	0	0	4,264,992	2,104,992
31	960,336	825,336	652,896	652,896	2,847,744	687,744
Total	35,914,464	33,295,464	18,101,088	18,101,088	91,641,600	29,499,600

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

Table 37. San Joaquin Field Division Pumping Plant Energy Load Data

(in kWh)

December 2003

Date	Coastal Branch					California Aqueduct			
	Las Perillas	Badger Hill	Devils Den	Bluestone	Polonio	Buena Vista	Teerink	Chrisman	Edmonston
1	7,068	16,088	41,256	39,816	43,452	1,269,792	1,420,488	3,194,208	11,729,520
2	10,664	27,800	39,582	36,864	39,942	1,341,072	1,499,832	3,373,056	12,378,240
3	7,660	19,080	34,776	33,084	35,190	1,391,256	1,527,192	3,445,920	12,632,400
4	8,328	21,256	44,874	42,462	45,738	1,325,304	1,475,568	3,287,808	12,254,400
5	7,448	18,800	38,070	36,126	38,916	1,306,728	1,504,944	3,390,912	12,436,560
6	9,140	23,568	44,730	42,138	46,278	1,443,456	1,599,192	3,576,960	13,100,400
7	6,998	16,736	39,186	37,026	41,166	1,333,368	1,542,312	3,474,432	13,101,840
8	4,356	10,480	30,420	28,008	30,492	1,397,448	1,536,336	3,422,016	12,502,080
9	6,642	16,688	33,012	31,140	33,714	1,348,560	1,516,392	3,371,328	12,492,720
10	8,590	20,024	46,350	43,776	46,872	1,367,064	1,530,144	3,409,344	12,569,040
11	6,372	16,432	32,346	30,510	33,750	1,277,856	1,471,104	3,299,904	12,250,800
12	6,246	14,288	27,000	25,308	27,198	1,370,664	1,523,952	3,404,736	12,576,240
13	6,386	15,592	41,544	39,996	43,236	1,418,040	1,570,752	3,536,928	13,140,720
14	5,634	13,384	41,454	38,592	41,994	1,350,792	1,492,056	3,384,864	12,639,600
15	4,842	11,208	28,350	27,108	29,340	1,308,240	1,473,048	3,299,040	12,062,160
16	8,006	20,032	37,854	35,388	38,268	1,243,944	1,326,528	2,988,288	10,908,720
17	8,226	18,792	32,760	31,266	33,480	1,302,840	1,492,416	3,373,056	12,563,280
18	8,302	21,592	40,248	38,124	41,346	1,414,368	1,526,832	3,432,384	12,803,040
19	8,662	20,808	32,148	30,402	33,264	1,340,424	1,515,456	3,407,040	12,621,600
20	8,204	20,776	48,852	46,098	49,734	1,554,912	1,714,752	3,881,664	14,439,600
21	6,562	16,176	37,206	33,840	38,070	1,545,264	1,752,408	3,938,688	14,558,400
22	8,966	22,216	45,018	43,128	44,982	1,460,664	1,609,056	3,618,432	13,512,240
23	8,648	21,248	33,372	32,184	34,290	1,262,520	1,411,272	3,152,448	11,867,760
24	8,690	21,560	39,294	35,964	39,492	1,334,808	1,516,248	3,330,144	12,263,040
25	7,286	17,104	46,620	44,028	49,266	1,416,672	1,571,760	3,570,048	13,125,600
26	5,404	12,416	28,062	27,054	28,638	1,066,176	1,279,224	2,870,208	10,552,320
27	7,714	19,320	32,076	29,520	31,842	1,343,448	1,476,144	3,311,136	12,278,880
28	8,642	20,744	32,202	30,078	33,372	834,840	972,792	2,196,288	8,017,200
29	8,058	19,776	33,282	32,706	34,128	832,176	901,872	2,037,024	7,467,120
30	8,460	20,600	26,874	24,390	27,306	959,400	1,123,776	2,482,560	9,235,440
31	8,076	19,880	26,100	24,930	26,748	1,216,872	1,357,488	3,066,336	11,212,560
Total	234,280	574,464	1,134,918	1,071,054	1,161,504	40,378,968	45,231,336	101,527,200	375,293,520

Table 38. Southern Field Division Energy Data

(in kWh)

December 2003

Date	West Branch			East Branch			
	Oso Pumping Plant Load	Warne Powerplant Generation	Castaic Powerplant SWP Generation	Alamo Powerplant Generation	Pearblossom Pumping Plant Load	Devil Canyon Powerplant Generation	Mojave Siphon Powerplant Generation
1	756,560	1,814,256	2,760,000	0	1,401,540	2,504,448	159,516
2	809,704	1,758,456	2,760,000	0	1,615,236	2,599,392	179,025
3	715,400	1,675,944	2,760,000	0	1,721,388	2,852,640	179,319
4	768,152	1,775,232	2,760,000	0	1,675,392	2,698,368	202,041
5	671,328	1,744,560	2,760,000	0	1,748,040	2,754,816	197,925
6	796,488	1,725,552	2,760,000	0	1,775,028	2,723,712	186,228
7	769,272	1,496,592	2,760,000	0	1,821,192	2,391,264	187,614
8	532,168	1,039,608	1,920,000	0	2,097,996	2,390,496	252,336
9	519,400	1,109,736	1,920,000	0	2,280,600	2,467,296	260,736
10	549,864	1,052,424	1,920,000	0	2,220,552	2,604,096	260,316
11	772,016	1,657,584	1,920,000	0	1,549,704	2,504,640	173,481
12	706,664	1,199,016	1,920,000	0	2,039,292	2,471,424	221,151
13	676,648	1,216,080	1,920,000	0	2,068,056	2,392,128	193,914
14	676,592	1,180,368	1,920,000	0	1,863,828	2,422,848	220,857
15	712,768	1,696,608	2,760,000	0	1,631,052	2,538,624	201,516
16	630,280	1,510,992	2,760,000	0	1,560,396	2,508,288	138,747
17	751,016	1,324,368	2,760,000	0	1,767,984	2,417,472	210,903
18	715,568	1,430,496	2,760,000	85,736	1,927,128	2,456,832	210,840
19	709,184	1,582,128	2,760,000	324,688	1,561,020	2,498,880	185,535
20	910,504	1,845,000	2,760,000	352,380	1,921,752	2,574,432	202,881
21	937,216	1,831,176	2,760,000	322,252	1,915,800	2,524,224	200,172
22	779,296	1,617,264	2,760,000	339,752	1,917,912	2,408,352	214,095
23	666,120	1,616,544	2,760,000	313,712	1,773,600	2,194,176	186,060
24	702,128	1,570,464	2,760,000	324,240	1,786,764	2,087,712	193,704
25	758,688	1,571,832	2,760,000	351,596	1,742,700	1,808,736	159,096
26	752,248	1,497,888	2,760,000	224,700	1,563,288	1,815,840	151,914
27	991,928	1,804,824	2,760,000	207,200	1,016,724	956,832	84,441
28	719,376	1,837,944	2,760,000	85,148	297,204	710,400	11,907
29	673,176	1,564,704	2,760,000	84,980	647,832	1,908,000	58,527
30	725,256	1,532,736	2,760,000	163,996	846,576	2,211,936	92,736
31	725,928	1,585,224	2,760,000	268,884	1,321,392	2,760,480	175,854
Total	22,580,936	47,865,600	79,680,000	3,449,264	51,076,968	72,158,784	5,553,387